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THE STELLAR POPULATIONS OF PRAESEPE AND COMA BERENICES

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ABSTRACT

We present the results of a stellar membership survey of the nearby open clusters Praesepe and Coma Berenices. We have combined archival survey data from the SDSS, 2MASS, USNOB1.0, and UCAC-2.0 surveys to compile proper motions and photometry for ∼5 million sources over 300 deg^2. Of these sources, 1010 stars in Praesepe and 98 stars in Coma Ber are identified as candidate members with probability >80%; 442 and 61 are identified as high-probability candidates for the first time. We estimate that this survey is >90% complete across a wide range of spectral types (F0 to M5 in Praesepe, F5 to M6 in Coma Ber). We have also investigated the stellar mass dependence of each cluster's mass and radius in order to quantify the role of mass segregation and tidal stripping in shaping the present-day mass function and spatial distribution of stars. Praesepe shows clear evidence of mass segregation across the full stellar mass range; Coma Ber does not show any clear trend, but low number statistics would mask a trend of the same magnitude as in Praesepe. The mass function for Praesepe ($\tau\sim$600 Myr; $M\sim$500 $M_{\odot}$) follows a power law consistent with that of the field present-day mass function, suggesting that any mass-dependent tidal stripping could have removed only the lowest-mass members (<0.15 $M_{\odot}$). Coma Ber, which is younger but much less massive ($\tau\sim$400 Myr; $M\sim$100 $M_{\odot}$), follows a significantly shallower power law. This suggests that some tidal stripping has occurred, but the low-mass stellar population has not been strongly depleted down to the survey completeness limit (∼0.12 $M_{\odot}$).

Subject headings: open clusters and associations: individual (Praesepe, Coma Berenices), stars: mass function, stars: evolution, stars: fundamental parameters

1. INTRODUCTION

Star clusters are among the most powerful and versatile tools available to stellar astronomy. Nearby clusters serve as prototypical populations for studying many diverse topics of stellar astrophysics, including star formation, stellar structure, stellar multiplicity, and circumstellar processes like planet formation (e.g. Patience et al. 2002; Bouy et al. 2006; Muench et al. 2007; Stauffer et al. 2007; Siegler et al. 2007); star clusters are uniquely sensitive to the physics of these processes due to their uniform and well-constrained age, distance, and metallicity. Open clusters are also thought to be the birthplaces of most stars, so the formation, evolution, and disruption of clusters establish the environment of star formation and early stellar evolution. Two of the nearest open clusters are Praesepe and Coma Berenices. Praesepe is a rich ($N\sim 1000$ known or suspected members), intermediate age (∼600 Myr) cluster at a distance of 170 pc (Hambly et al. 1995a), while Coma Ber is younger and closer (∼400 Myr; 90 pc) and much sparser ($N\sim 150$; Casewell et al. 2006).

Praesepe has been the target of numerous photometric and astrometric membership surveys over the past century; part of the reason for its popularity is that its proper motion is relatively distinct from that of field stars (-36.5,-13.5 mas yr^{-1}), simplifying the identification of new members. Its high-mass stellar population was identified early in the last century by Klein-Wassink (1927), and subsequent surveys extended the cluster census to intermediate-mass stars (Artyukhina 1966; Jones & Cudworth 1983). The M dwarf stellar population was first identified by Jones & Stauffer (1991). A later survey by Hambly et al. (1995a) extended this work to a fainter limit and a larger fraction of the cluster, producing a cluster census that is still used for most applications (e.g. Allen & Strom 1995; Holland et al. 2000; Kafka & Honeycutt 2006). There have been additional surveys to identify cluster members, but they have been prone to contamination from field stars (Adams et al. 2002) or based purely on photometry with no astrometric component (Pinfield et al. 1997; Chappelle et al. 2005).

Coma Ber, in contrast, has been largely neglected in surveys of nearby open clusters. The cluster would be an ideal population for many studies due to its proximity (second only to the Hyades) and intermediate age between the Pleiades (125 Myr) and Hyades or Praesepe (∼600 Myr), but its members are difficult to distinguish from field stars because it has a proper motion (-11.5, -9.5 mas yr^{-1}) which is significantly lower than that of Praesepe. It is also a much sparser cluster than Praesepe, and its few members are projected over a much larger area of the sky. Its high-mass stellar population has been known for many decades (Trumpler 1937), but only a handful of additional members have been confirmed (Artyunkhin 1966; Argue & Kenworthy 1969; Bounatiro 1993; Odenkirchen et al. 1998); many candidate members have been identified, but a large fraction of them have been shown to be unrelated field stars (e.g. Jeffries 1999; Ford et al. 2001). One survey for low-mass stars was conducted recently by Casewell et al. (2006), who used 2MASS photometry and USNO-B1.0 astrometry to identify 60 candidate members extending well into the M dwarf regime (∼0.30 $M_{\odot}$). This survey discovered many

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candidate members with spectral types of late G and early M, but as we will discuss later, significant contamination from field stars rendered it completely insensitive to K dwarf members and diluted its other discoveries with a significant number of nonmembers.

In this paper, we combine the photometric and astrometric results of several wide-field imaging surveys to compile a full stellar census of Praesepe and Coma Ber. This census is both wider and deeper than any previous proper motion survey, extending to near the substellar boundary. Our results for Praesepe allow us to fully characterize the structure and dynamical evolution of this prototypical cluster, while our results for Coma Ber unveil a new benchmark stellar population that is closer than any cluster except the Hyades and that fills a poorly-studied age range. In Section 2, we describe the all-sky surveys that contribute to our cluster census, and in Section 3, we describe the photometric and astrometric analysis techniques that we used to identify new members. We summarize our new catalog of cluster members in Section 4. Finally, in Section 5, we analyze the structure and properties of each cluster.

2. DATA SOURCES

In this survey, we worked with archival data from several publicly-available surveys: SDSS, 2MASS, USNO-B1.0, and UCAC2. In each case, we extracted a portion of the source catalogue from the data access websites. We worked with circular areas of radius 7^o centered on the core of each cluster (8h40m, $+20^o$ and 11h24m,$+26^o$, respectively); for both clusters, this radius is approximately twice the estimated tidal radius (Hambly et al. 1995a; Casewell et al. 2006).

2.1. *SDSS*

The Sloan Digital Sky Survey (SDSS; York et al. 2000) is an ongoing deep optical imaging and spectroscopic survey of the northern galactic cap. The most recent data release (DR5; Adelman-McCarthy et al. 2007) reported imaging results in five filters ($ugriz$) for 8000 deg^2, including the full areas of Praesepe and Coma Ber. The 10σ detection limits in each filter are $u = 22.0$, $g = 22.2$, $r = 22.2$, $i = 21.3$, and $z = 20.5$; the saturation limit in all filters is $m \sim 14$. The typical absolute astrometric accuracy is ∼45 mas rms for sources brighter than $r = 20$, declining to 100 mas at $r = 22$ (Pier et al. 2003); absolute astrometry was calibrated with respect to stars from UCAC2, which is calibrated to the Inertial Coordinate Reference Frame (ICRS).

The default astrometry reported by the SDSS catalog is the r band measurement, not the average of all five filters. However, the residuals for each filter (with respect to the default value) are available, so we used these residuals to construct a weighted mean value for our analysis. We adopted a conservative saturation limit of $m \sim 15$ in all filters, even though the nominal saturation limit is $m \sim 14$, because we found that many photometric measurements were mildly saturated for $14 < m < 14.5$. We also neglect measurements which are flagged by the SDSS database as having one or more saturated pixels. Finally, we removed all sources which did not have at least one measurement above the nominal 10σ detection limits. Any cluster members fainter than this limit will not have counterparts in other catalogs, and the presence of excess sources can complicate attempts to match counterparts between datasets.

2.2. *USNO-B1.0*

The USNO-B1.0 survey (USNOB; Monet et al. 2003) is a catalogue based on the digitization of photographic survey plates from five epochs. For fields in the north, including both Praesepe and Coma Ber, these plates are drawn from the two Palomar Observatory Sky Surveys, which observed the entire northern sky in the 1950s with photographic B and R plates and the 1990s with photographic B, R, and I plates; we follow standard USNOB nomenclature in designating these observations $B1$, $R1$, $B2$, $R2$, and $I2$.

The approximate detection limits of the USNOB catalog are $B \sim 20$, $R \sim 20$, and $I \sim 19$, and the observations saturate for stars brighter than $V \sim 11$. The typical astrometric accuracy at each epoch is ∼120 mas, albeit with a significant systematic uncertainty (up to 200 mas) due to its uncertain calibration into the the ICRS via the unpublished USNO YS4.0 catalog. As we describe in Section 3.2, we have recalibrated the USNOB astrometry at each epoch using UCAC2 astrometry; this step reduces the systematic uncertainty.

2.3. *2MASS*

The Two-Micron All-Sky Survey (2MASS; Skrutskie et al. 2006) observed the entire sky in the J, H, and K_s bands over the interval of 1998-2002. Each point on the sky was imaged six times and the coadded total integration time was 7.8s, yielding 10σ detection limits of $K = 14.3$, $H = 15.1$, and $J = 15.8$. The saturation levels depend on the seeing and sky background for each image, but are typically $J < 9$, $H < 8.5$, and $K_s < 8$. However, the NIR photometry is typically accurate to well above these saturation limits since it was extrapolated from the unsaturated PSF wings. The typical astrometric accuracy attained for the brightest unsaturated sources ($K \sim 8$) is ∼70 mas. The absolute astrometry calibration was calculated with respect to stars from Tycho-2; subsequent tests have shown that systematic errors are typically $\lesssim$30 mas (Zacharias et al. 2003).

2.4. *UCAC2*

The astrometric quality of all three of the above surveys could be compromised for bright, saturated stars, so proper motions calculated from those observations could be unreliable. Many of the brightest stars are saturated in all epochs, so we have no astrometry with which to compute proper motions. We have addressed this problem by adopting proper motions for bright stars as measured by the Second USNO CCD Astrograph Catalog (UCAC2; Zacharias et al. 2004).

UCAC2 was compiled from a large number of photographic sky surveys and a complete re-imaging of the sky south of $\delta \sim 40^o$. UCAC2 is not complete since many resolved sources (double stars and galaxies) were rejected. However, most sources between $R = 8$ and $R = 16$ should be included. The typical errors in the reported proper motions are ∼1-3 mas yr^{-1} down to $R = 12$ and ∼6 mas yr^{-1} to $R = 16$. We have adopted UCAC2 proper motions in cases where we were unable to calculate new values or where the UCAC2 uncertainties are lower than the uncertainties for our values.

2.5. *Known Members of Praesepe*

There have been many previous surveys to identify members of Praesepe, so we have compiled a list of high-confidence cluster members that can be used to test our survey procedures (Section 3) and determine the completeness of our survey (Section 4.2). We have not done the same for Coma Ber since there are far fewer high-confidence members (<50). However, the brightness ranges are similar enough that the detection efficiencies should be similar for both clusters.

We drew our high-confidence Praesepe sample from the proper motion surveys of Jones & Cudworth (1983), Jones & Stauffer (1991), and Hambly et al. (1995a). We also included the high-mass stars identified by Klein-Wassink (1927) which possessed updated astrometry in the survey by Wang et al. (1995). We required each member of our high-confidence sample to have been identified with ≥95% probability of membership by at least one survey, and to not have been identified with <80% probability by any other survey; a total of 381 sources met these requirements.

3. DATA ANALYSIS

Cluster surveys typically identify candidate members using a combination of photometric and astrometric data. All cluster members have the same age, distance, and 3-D spatial velocity, so they follow the same color-magnitude sequence and have the same proper motion. This allows for the efficient rejection of all nonmembers which do not meet both criteria.

In the following subsections, we describe our procedure for applying these tests. First, we use SED fitting for our photometric data (spanning 0.3-2.3 μm) to estimate the temperatures and luminosities of all ∼5 million sources, and then we calculate a weighted least-squares fit of our time-series astrometric data to calculate the corresponding proper motions. After deriving both sets of results, we then cut the overwhelming majority of sources which do not follow the cluster photometric sequence. Finally, we examine the (much smaller) list of remaining sources and determine membership probabilities based on the level of agreement between individual candidate astrometry (proper motion and radius from cluster center) and the corresponding distributions for the cluster and for background stars.

We chose to apply the cuts in this order specifically because the final membership probabilities are based on the astrometric properties and not the photometric properties, but inverting the order of the cuts would not affect our final results. Both sets of tests were crucial in narrowing the list of candidates. Of the $\sim 10^6$ sources in each cluster for which we measured proper motions, $\sim 10^5$ would have been selected by a purely kinematic test and $\sim 10^4$ would have been selected by a purely photometric test.

3.1. *SED Fitting*

We base our photometric analysis on the merged results from 2MASS and SDSS, which yield measurements in 8 filters ($ugrizJHK$) for each source. We do not use the photometric results reported by USNOB because they are much more uncertain (∼0.25 mag) and do not introduce any new information beyond that reported by SDSS. We also note that many high-mass sources were saturated in one or more filters, so they had fewer than 8 photometric measurements available; the highest-mass stars were saturated in all five SDSS filters, leaving only JHK photometry.

Candidate cluster members traditionally have been selected by photometric surveys which measure magnitudes in several bandpasses and then estimate each star's intrinsic properties (bolometric flux and temperature) using its observed properties (magnitudes and colors). Candidate members are then selected from those stars which fall along the cluster sequence (as defined by known members and by theoretical models) on color-magnitude diagrams. However, this method suffers from serious flaws. A single magnitude is typically taken as a proxy for flux, which places excessive weight on that bandpass and underweights other bandpass(es) in the survey. If there are more than two bandpasses, motivating the use of multiple CMDs, then color-magnitude selection also neglects the covariance between measurements, artificially inflating the uncertainty in an object's intrinsic properties. Finally, the use of many CMDs introduces significant complexity in the interpretation and communication of results.

We have addressed these challenges by developing a new method for photometric selection of candidate members. Instead of using many different combinations of color and magnitude as proxies for stellar flux and temperature, we have used an SED fitting routine to estimate directly each star's intrinsic properties, then selected candidate members based on their positions in the resulting HR diagram. This method is not vulnerable to the flaws of individual color-magnitude selection since it uses all data simultaneously and uniformly, and since we can implement it as a least-squares minimization, it significantly reduces the uncertainty in the final results.

Specifically, for each star we calculated the χ^2 goodness of fit for the system of eight equations:

$$M_i - m_i = DM$$

where m_i is the observed magnitude in filter i, M_i is the absolute magnitude in filter i for the SED model being tested, and DM is the distance modulus, which was estimated from a weighted least-squares fit across all filters. This system ignores the effects of reddening, but this should be minimal for both clusters. Taylor et al. (2006) found a reddening value for Praesepe of $E(B-V) = 27 \pm 4$ mmag, while Feltz (1972) found a value for the Coma Ber region of $E(B-V) = 0 \pm 2$ mmag.

We tested a library of 491 stellar SEDs which spanned a wide range of spectral types: B8 to L0, in steps of 0.1 subclasses. We describe the SED library and its construction in more detail in Appendix A. We rejected potentially erroneous observations by rejecting any measurement that disagreed with the best-fit SED by more than 3σ, where σ is the photometric error reported by the SDSS or 2MASS, and then calculating a new fit. The model which produced the best χ^2 fit over the 8 filters was adopted as the object spectral type, and the corresponding value of DM was added to the model's absolute bolometric magnitude to estimate the apparent bolometric flux. The uncertainties in the spectral type and distance modulus were estimated from the 1σ interval of the χ^2 fit for each object.

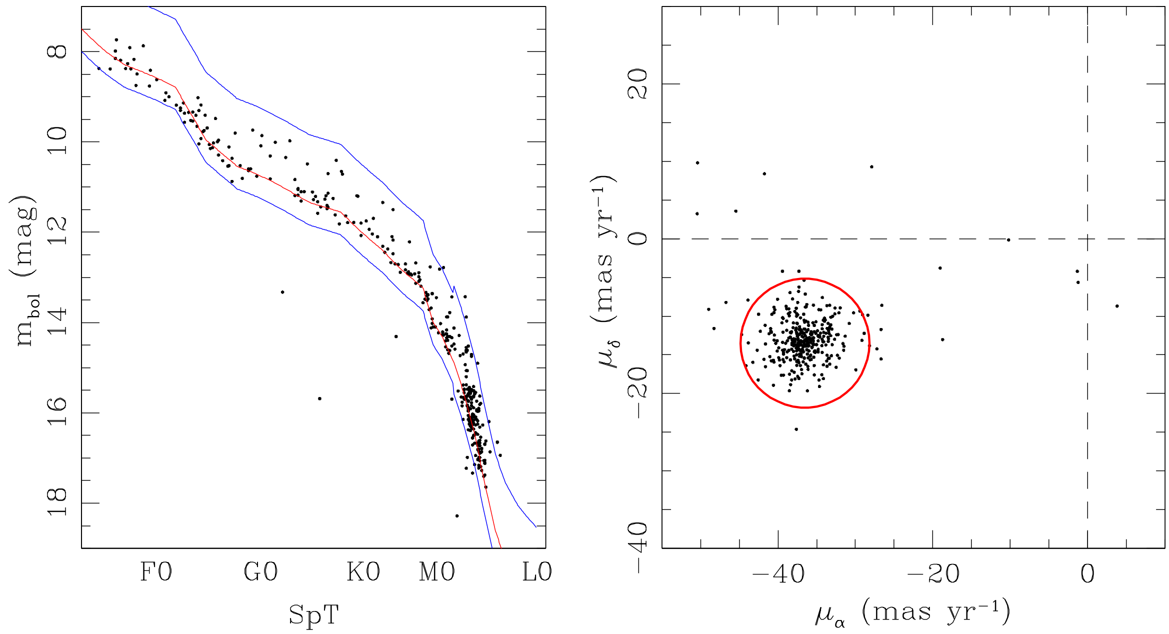

FIG. 1.— HR and proper motion diagrams for our high-confidence sample of Praesepe members. For the HR diagram, we plot the cluster single-star sequence (red) and the selection range for identifying new members (blue). In the proper motion diagram, we plot a circle of radius 8 mas yr^{-1} (approximately 2σ for a typical M4 member) centered at the mean cluster proper motion.

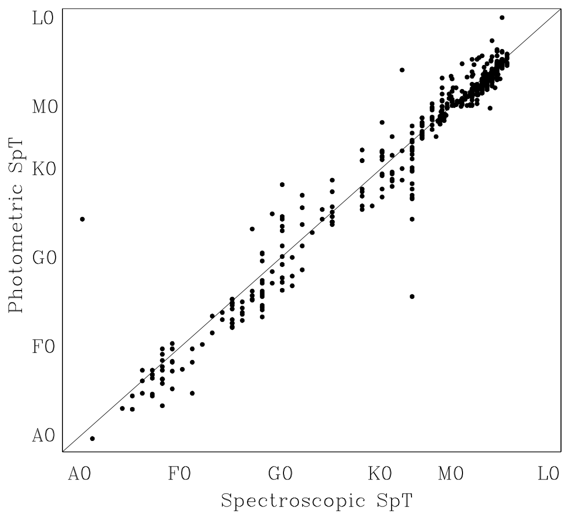

FIG. 2.— A comparison of our photometric spectral type determinations to spectroscopic determinations for 632 candidate Praesepe members in the literature. The small excess of points below the relation at spectral type K3 are all drawn from the spectroscopic survey of Adams et al. (2002), which observed spectra in a red wavelength range that contained no diagnostics for distinguishing FGK stars. The A0 star that we misclassified (KW 552) is an Algol-type eclipsing binary, so the 2MASS photometry may have been obtained during primary eclipse; we did not use any SDSS photometry in its SED fit because it was all saturated. If this is the case, our derived spectral type corresponds to an unknown combination of light from the primary and secondary. The K2 star that we misclassified (KW 572) was biased by saturated SDSS photometry which was not flagged.

In the left panel of Figure 1, we plot an H-R diagram for our high-confidence sample of Praesepe members. The red line shows the field main sequence at the distance of Praesepe (Appendix A), and the blue lines show the upper and lower limits that we use for identifying cluster members. For stars earlier than M2, these limits are set 0.5 magnitudes below and 1.5 magnitudes above the main sequence to allow for the width of the cluster sequence (due to errors, the finite depth of the cluster, and the existence of a multiple-star sequence). The late main sequence is nearly vertical in the HR diagram, which suggests that uncertainties in spectral type will be more important than uncertainties in flux for broadening the cluster sequence. We account for this by extending the selection range for spectral types $\geq$M2 to 0.7 magnitudes below and 1.7 magnitudes above the field main sequence. Most of the 15 outliers have fluxes or spectral types that are biased by one or more photometric measurements which appear to be erroneous by less than 3σ, causing them to fall just outside our selection range. However, four sources appear to have colors and magnitudes that are genuinely inconsistent with the cluster sequence.

In Figure 2, we plot our photometric spectral type against previously-measured spectroscopic spectral types for 632 candidate Praesepe members (Ramberg 1938; Bidelman 1956; Corbally & Garrison 1986; Abt 1986; Williams et al. 1994; Allen & Strom 1995; Adams et al. 2002; Kafka & Honeycutt 2006). The two sets of spectral types agree systematically to within <2 subclasses; the dispersion in the relation is $\sim$3 subclasses for early-type stars (A0-G0) and $\lesssim$1 subclass for later-type stars (G0-M6). This dispersion represents the combined dispersions of both our measurements and those in the literature, so it represents an upper limit on the statistical uncertainties in our spectral type estimate. Most of the early-type stars were classified by Ramberg and Bidelman, so the larger scatter could be a result of their older, less precise observing techniques. However, our SED-fitting routine rejected most of the SDSS photometry for these sources since it was saturated, so some of the uncertainty may be a result of using only 2MASS JHK photometry.

When applied to our full source list, our photometric selection criteria identify 11,999 candidate members of Praesepe and 2,034 candidate members of Coma Ber. As we demonstrate in the Section 3.2 and 3.3, the vast

TABLE 1
Astrometric Recalibration Offsets

Cluster/Epoch	Δ_α	Δ_δ
Praesepe B1	+42	+97
Praesepe R1	+49	+104
Praesepe B2	+10	-75
Praesepe R2	-2	-78
Praesepe I2	-11	-119
Coma Ber B1	-16	+55
Coma Ber R1	-21	+80
Coma Ber B2	-132	-58
Coma Ber R2	-96	-64
Coma Ber I2	-118	-93

Note. — Offsets are measured in mas. The typical uncertainty for each offset, as estimated from the standard deviation of the mean, is ∼3-5 mas.

majority of these sources are probably background stars since they have proper motions inconsistent with cluster membership.

3.2. *Proper Motions*

Kinematic measurements are a key tool in identifying members of stellar populations. Internal cluster velocity dispersions are typically much lower than the dispersion of field star velocities, so stellar populations generally can be distinguished from the field star population by their uniform kinematics. The measurement of tangential kinematics, via proper motions, is also an efficient method since it can be applied to many cluster members simultaneously using wide-field imaging. Many recent efforts have employed various combinations of all-sky surveys in order to systematically measure proper motions of both clusters and field stars; USNOB is itself a product of such analysis, and Gould & Kohlmeier (2004) produced an astrometric catalog for the overlap between USNOB and SDSS Data Release 1. However, there has been no systematic attempt to combine all available catalogs using a single algorithm to produce a single unified set of kinematic measurements.

Before calculating proper motions for our survey, our first step was to recalibrate the five epochs of USNOB astrometry into the ICRS. The densest reference system that is directly tied to the ICRS is UCAC2, which we already cross-referenced with our dataset, so we used all of its sources with high-precision astrometry ($\sigma_\mu \lesssim 4$ mas yr^{-1}) as calibrators. For each USNOB epoch, we projected the simultaneous UCAC2 positions of all calibrators using modern (epoch 2000) UCAC2 astrometry and proper motions, then determined the median offset between the predicted UCAC2 values and the observed USNOB values. These offsets were then added to each USNOB source to bring its astrometry into the ICRS. We list these mean offsets in Table 1; each offset was typically calculated from ∼3000 sources, and the standard deviation of the mean for each offset was ∼3-5 mas. The median offsets were small (<150 mas), so the net change in our calculated final proper motions is $\lesssim$3 mas yr^{-1}.

After we recalibrated all surveys into the same reference system, we used a weighted least-squares fit routine to calculate the proper motion of each object based on all available astrometry for unsaturated detections. Our algorithm tested the goodness of each fit and rejected all outliers at $> 3\sigma$; most of these outliers were found in the photographic survey data, not in 2MASS or SDSS.

In the right panel of Figure 1, we plot a proper motion diagram for our high-confidence sample of Praesepe members. The mean cluster proper motion (-36.5,-13.5 mas yr^{-1}) is denoted by a red circle with a radius of 8 mas yr^{-1} (twice the typical 1σ uncertainty for the M4 members in our high-confidence sample). We found that 326 of our 381 high-confidence members fall within this limit, and most of the early-type stars (which have much smaller errors) form a much tighter distribution. Most of the outliers appear to be biased by erroneous first-epoch positions that can not be rejected at a 3σ level by our fitting routine. These early epochs are not significantly more prone to erroneous measurements than later photographic measurements, but they change the resulting proper motion by a larger amount since their time baseline with respect to all other measurements is so long.

Our subsequent kinematic analysis (Section 3.3) has retained all photometric candidates with proper motions within 20 mas yr^{-1} (5σ for low-mass candidates) of each cluster's mean proper motion; we set this limit to be much larger than the cluster distribution so that we would also retain enough field stars to determine their density in proper motion space. We found that 2611 of our 11999 photometric candidates in Praesepe and 645 of our 2034 photometric candidates in Coma Ber fell within this limit.

We removed a small number of sources (44 from Praesepe and 4 from Coma Ber) that had highly uncertain proper motions (σ>10 mas yr^{-1}) because we could not have accurately assessed their membership. The astrometry was typically more uncertain for these few sources because there were few or no detections in USNOB. We also visually inspected the SED for any source with a poor photometric fit ($\chi^2_\nu > 10$) and rejected two sources near Coma Ber which were only selected due to saturated SDSS photometry that had not been flagged.

Finally, we visually inspected the color-composite SDSS image of each source using the SDSS batch image service[1]. We found that 8 sources in Praesepe and 31 sources in Coma Ber were resolved background galaxies, so we removed them from further consideration. These galaxies were split roughly evenly between bright ($r \sim 14-16$) sources with K star colors and faint ($r \sim 19$) galaxies with red riz colors and no ug or JHK detections; in all cases, the apparent proper motion was caused by a large scatter in the photometric centroids. The SDSS database also includes a morphological classification of whether each object is a star or galaxy that is likely to be more sensitive than visual inspection, but we have found that saturated stars and marginally resolved binaries are often classified as galaxies by the SDSS pipeline, so we chose not to use this parameter in rejecting likely galaxies.

3.3. *Identification of Cluster Members*

Our photometric and astrometric selection criteria do not perfectly reject field stars, so we expect that some fraction of our candidates will actually be interlopers and not cluster members. Many surveys quantify the

[1] http://cas.sdss.org/dr5/

level of contamination by studying one or more control populations, selected from a nearby volume of kinematic or spatial parameter space. The membership probability for a set of stars is then represented by the fractional excess in the candidate population with respect to the control population. However, this choice ignores all information about the spatial or proper motion distribution of the candidates, treating these distributions as constant within the selection limits. A more rigorous approach should take these non-constant probability density functions into account, giving highest membership probability to those candidates that are closest to the cluster center and have proper motions closest to the mean cluster value.

To this end, we have adopted the maximum likelihood method of Sanders (1971) and Francic (1989) to distinguish cluster members and field stars among the candidates that meet our photometric and kinematic selection criteria. This method explicitly fits the spatial and kinematic distributions of all candidates with two separate probability density functions, $\Phi = \Phi_c + \Phi_f$, corresponding to cluster members and field interlopers. The method then assigns a membership probability to each star based on the values of each distribution for that location in parameter space, $P_{mem} = \Phi_c/(\Phi_c + \Phi_f)$.

Following some of the refinements of Francic (1989), we chose to fit the cluster spatial distribution with an exponential function and the cluster proper motion distribution with a gaussian function:

$$\Phi_c(\mu_\alpha, \mu_\delta, r) = \frac{N_c e^{-r/r_0}}{2\pi^2 r_0^2 \sigma^2} e^{\frac{1}{2\sigma^2}((\mu_\alpha - \mu_{\alpha,m})^2 + (\mu_\delta - \mu_{\delta,m})^2)}$$

Where the quantities N_c (the total number of cluster stars), r_0 (the scale radius), and σ (the standard deviation of the cluster proper motion distribution) were determined from the fit. We adopted the mean proper motions of each cluster, $(\mu_{\alpha,m}, \mu_{\delta,m}) = (-36.5, -13.5)$ mas yr^{-1} (Praesepe) and $(-11.5, -9.5)$ mas yr^{-1} (Coma Ber), from the literature; these results match UCAC2 values for known high-mass cluster members.

We evaluated the option of fitting the cluster spatial distribution with a mass-dependent King profile (King 1962), but we found that the function produced a poor fit at large separations. High-mass stars in particular are more centrally concentrated than a King profile would predict. By contrast, an exponential radial density profile can accurately match the outer density profile at the cost of moderately overestimating the central density. We decided that it is more important to accurately predict the spatial structure of the outer cluster, where cluster members are less numerous and harder to distinguish from field stars, so we chose to use the exponential profile.

We chose to fit the field spatial distribution with a constant function since the density of field stars does not vary significantly at these high galactic latitudes. In a departure from previous convention, we also chose to fit the field proper motion distribution with a constant function. As we show in Figures 4 and 5, the proper motion distribution of field stars is not easily parametrized with a single function. However, the distribution varies only on scales much larger than the astrometric precision for typical mid-M candidates ($\sim$4 mas yr^{-1}). If we consider a small region of parameter space, then the distribution should be roughly constant. Thus, the field probability density function we have adopted is:

$$\Phi_f = \frac{N_{total} - N_c}{A_{SP} A_{PM}}$$

Where N_{total} is the total number of stars (field and cluster), N_c is the number of cluster stars, A_{SP} represents the total spatial area of our survey on the sky (a circle with radius 7^o), and A_{PM} represents the total area of proper motion parameter space from which we selected candidates (a circle with radius 20 mas yr^{-1}). The proper motion criterion was chosen to be much larger than the typical uncertainty in cluster proper motions ($\sim 5\sigma$ for the faintest stars) while being small enough that an assumption of a constant field distribution is approximately valid.

Both clusters are old enough for mass segregation to have occurred, plus the astrometric uncertainties depend significantly on brightness, so we expect that the spatial and kinematic distributions will show a significant mass dependence. We have accounted for this by dividing each cluster sample into spectral type bins and fitting these bins independently. As we describe in Section 5, this choice also offers a natural system for quantifying the mass-dependent properties of each cluster. Our parametrization of the cluster spatial and proper motion distributions provides direct measurements of the cluster mass function (via N_c), the astrometric precision (via σ), and the effects of mass segregation (via r_0).

Finally, we determined confidence intervals for each value via a bootstrap Monte Carlo routine. This method creates synthetic datasets by drawing with replacement from the original dataset; for each bin we constructed 100 synthetic datasets with the same number of total members, re-ran our analysis for each set, and used the distribution of results to estimate the standard deviations of the fit parameters.

In Table 2, we summarize the parameter fits. We found in both clusters that the fits for spectral types >M6 predicted marginally significant values of N_c, a result we attribute to our nondetection of most late-type members. We therefore will not use those parameters in our analysis of the mass-dependent cluster properties. However, in the interest of completeness, we will still report any candidates which have high membership probabilities. Some of these stars have already been identified as candidates by previous surveys (e.g. IZ072; Pinfield et al. 2003), so they may be worthy of consideration in future studies. We also found extremely high contamination rates for K stars in Coma Ber; this is a natural result of its low proper motion, which causes confusion with background K giants. There are few high-probability K-type members identified for Coma Ber, but the fits for bulk properties (N_c, r_0, and σ) are statistically significant.

4. RESULTS

4.1. *New Cluster Members*

Based on our kinematic and photometric selection procedures, we identified 1130 candidate members of Praesepe and 149 candidate members of Coma Ber with membership probabilities of $\geq$50%; 1010 and 98 of these candidates have membership probabilities of >80%. Of these high-probability candidates, 76 and 50 are newly-identified as proper-motion candidates, while 568 and 37

TABLE 2
Cluster Fit Parameters

SpT	N_c	N_{tot}	r_0 (deg)	σ (mas yr^{-1}
		Praesepe		
A-F	89±9	248	0.45±0.04	1.36±0.10
G	69±8	236	0.49±0.05	1.65±0.14
K0.0-K3.9	72±9	212	0.66±0.09	3.44±0.36
K4.0-K7.9	102±9	247	0.71±0.06	3.34±0.16
M0.0-M1.9	127±9	283	0.71±0.04	2.85±0.16
M2.0-M2.9	90±10	243	0.92±0.10	3.03±0.23
M3.0-M3.9	202±12	440	0.71±0.03	3.01±0.17
M4.0-M4.9	249±15	514	0.87±0.04	4.69±0.28
M5.0-M5.9	40±6	94	0.80±0.10	6.30±0.66
M6.0-M6.9	15±6	42	0.98±0.38	7.00±1.93
		Coma Ber		
A-F	17±3	25	1.19±0.24	1.22±0.19
G	13±3	31	1.06±0.16	1.19±0.18
K	40±13	413	1.58±0.17	3.91±0.89
M0.0-M2.9	24±5	50	1.33±0.12	4.58±0.58
M3.0-M5.9	36±6	78	1.46±0.12	5.07±0.58
M6.0-M8.9	3±2	15	1.62±0.55	4.63±1.26

have been classified as high-probability (>80%) candidates in at least one previous survey and 366 and 11 were previously identified with lower probability (references in Section 1). In Tables 3 and 4, we list all candidate members with P_{mem} >50%. We also list their derived stellar properties, proper motions, membership probabilities, cross-identifications with previous surveys, and spectroscopically-determined spectral types. In Figure 3, we plot a histogram of the number of candidates as a function of P_{mem} for each cluster; a majority of candidates have membership probabilities of >90% or <10%, suggesting that most of these candidates are being unambiguously identified.

To demonstrate the impact of our selection techniques, in Figure 4 we plot an HR diagram for all stars near Praesepe which fall within 2σ of the mean cluster proper motion (left) and a proper motion diagram for all stars which passed our photometric selection criteria (right). In both cases, the distribution of cluster members can be visually distinguished from the underlying distribution of field stars. However, there is also significant overlap between cluster members and field stars, indicating that both tests were necessary. The proper motion test was a far better discriminant against field stars, a result of Praesepe's high and distinct proper motion; the photometric criteria accepted 11,999 sources, but only 1,932 stars fell within 2σ of the cluster's mean proper motion.

Based on the HR diagram, it appears that most field stars with consistent proper motions are nearby dwarfs; this is not surprising since few distant stars will have the large transverse velocities required to match the angular velocity of Praesepe. Based on the proper motion diagram, it appears that the interlopers which pass our photometric criteria are split evenly between stationary sources (such as halo giants) and moving sources with larger, randomly distributed proper motions (disk dwarfs that occupy the same physical volume as Praesepe). We also note that a clear binary sequence can be seen for early-type stars in the HR diagram, but it blends with the sigle-star sequence for late-type stars ($\gtrsim$M0).

In Figure 5, we plot similar HR and proper motion diagrams for the stars of Coma Ber. The cluster's HR sequence and proper motion distribution are not as visually distinctive since the cluster population is smaller, but the combination of kinematics and photometry still allow for the efficient identification of candidate members. Unlike for Praesepe, the photometric test was a better discriminant (accepting 2,034 sources) than the proper motion test (21,264 sources); this is a result of the cluster's lower distance (which places it higher in the HR diagram relative to the field star population) and much smaller proper motion (which allows more contamination from nonmoving background sources).

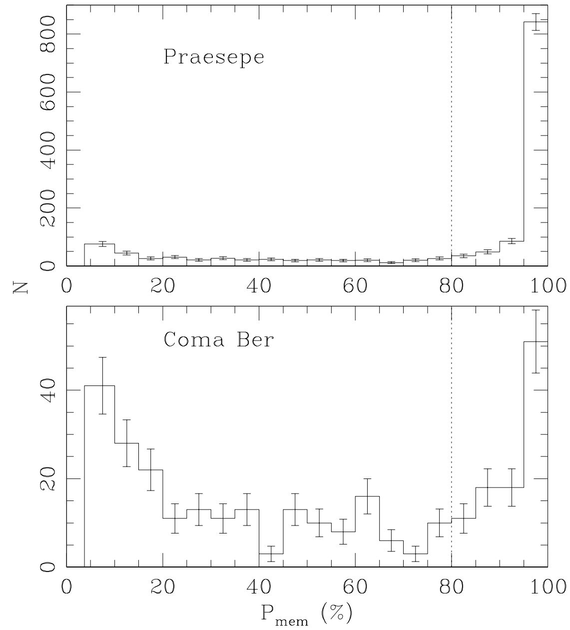

Fig. 3.— The number of candidate members with membership probability P_{mem} for Praesepe (top) and Coma Ber (bottom). Most of the Coma Ber candidates with 20% < P_{mem} < 80% are K stars, corresponding to the large number of candidates which we cannot conclusively distinguish as either K dwarf members or background K giant contaminants. The vertical dashed line denotes our suggested limit (P_{mem} > 80%) for identifying high-confidence cluster members.

The HR diagram for Coma Ber (which shows kinematically selected sources) includes a recognizeable giant branch and many faint (distant) early-type stars, both classes which typically have small proper motions. The proper motion diagram, which shows photometrically selected stars, includes far fewer sources than Praesepe; again, these are split between nonmoving background giants and nearby disk dwarfs. A probable binary sequence can also be seen for Coma Ber, though it is not as visually distinctive as for Praesepe.

4.2. *Completeness*

As we describe in Section 2.5, there have been several previous surveys which identified a large number of high-confidence Praesepe members. The resulting sample of 381 members, comprising all stars which have been identified at ≥95% confidence in one survey and at no lower than <80% confidence by any others, can test the completeness of our proposed member list.

Of the 381 known member stars, 22 were too bright to have proper motions in UCAC2, so they were immediately excluded from our cluster survey. This suggests that most of the brightest, highest-mass stars in either cluster would not have been identified with our technique. Of the 359 stars which were not rejected due to

TABLE 3
Candidate Members of Praesepe

ID	SpT	m_{bol} (mag)	μ_α	μ_δ (mas yr^{-1})	σ_μ	P_{mem} (%)	Previous ID[a]
2MASS J08374071+1931064	A8.0±3.2	8.17±0.02	-34.8	-12.5	0.7	99.9	KW 45 (A9; Abt 1986)
2MASS J08430594+1926153	F9.5±3.2	9.74±0.01	-36.6	-13.8	0.9	99.9	KW495 (F8; Ramberg 1938)
2MASS J08393837+1926272	K1.5±1.0	12.10±0.01	-33.0	-9.6	1.9	99.2	KW198 (K3; Allen & Strom 1995)
2MASS J08325566+1843582	K3.3±0.5	12.63±0.01	-38.1	-12.1	3.0	97.1	JS 17
2MASS J08380730+2026557	M1.5±0.1	14.59±0.01	-41.4	-13.2	3.0	99.5	
2MASS J08455917+1915127	M3.5±0.1	15.56±0.01	-41.8	-11.0	2.7	96.6	AD 3470 (M4; Adams et al. 2002)
2MASS J08410334+1837159	M6.8±0.2	17.47±0.01	-37.3	-14.2	4.0	96.5	IZ072 (M4.5; Adams et al. 2002)

Note. — The full version of Table 3 will be published as an online-only table in AJ, and is included at the end of this document.
[a] The survey by Adams et al. (2002) used standard 2MASS names for their sources. We already provide these names in the first column, so we have labelled the sources as AD $NNNN$ (where $NNNN$ represents the number of the entry in their results table) in the interest of brevity.

TABLE 4
Candidate Members of Coma Ber

ID	SpT	m_{bol} (mag)	μ_α	μ_δ (mas yr^{-1})	σ_μ	P_{mem} (%)	Previous ID[a]
2MASS J12230841+2551049	F9.7±2.9	8.97±0.01	-10.0	-8.5	0.7	100.0	Tr 97 (F8; Abt & Levato 1977)
2MASS J12272068+2319475	G7.9±1.5	9.91±0.01	-11.6	-8.8	0.7	99.6	CJD 6 (K0; SIMBAD)
2MASS J12262402+2515430	K2.8±0.5	11.55±0.02	-15.9	-6.1	1.7	84.9	
2MASS J12225942+2458584	K5.4±0.7	10.86±0.02	-8.7	-12.3	0.9	89.5	
2MASS J12241088+2359362	M2.2±0.1	14.03±0.01	-9.9	-9.4	2.7	98.1	CJD 46
2MASS J12163730+2653582	M2.6±0.1	14.04±0.01	-7.8	-10.9	3.0	97.6	CJD 45

Note. — The full version of Table 4 will be published as an online-only table in AJ, and is included at the end of this document.
[a] The survey by Casewell et al. (2006) did not give explicit names for their sources, so we have labelled the sources as CJD NN (where NN represents the number of the entry in their results table).

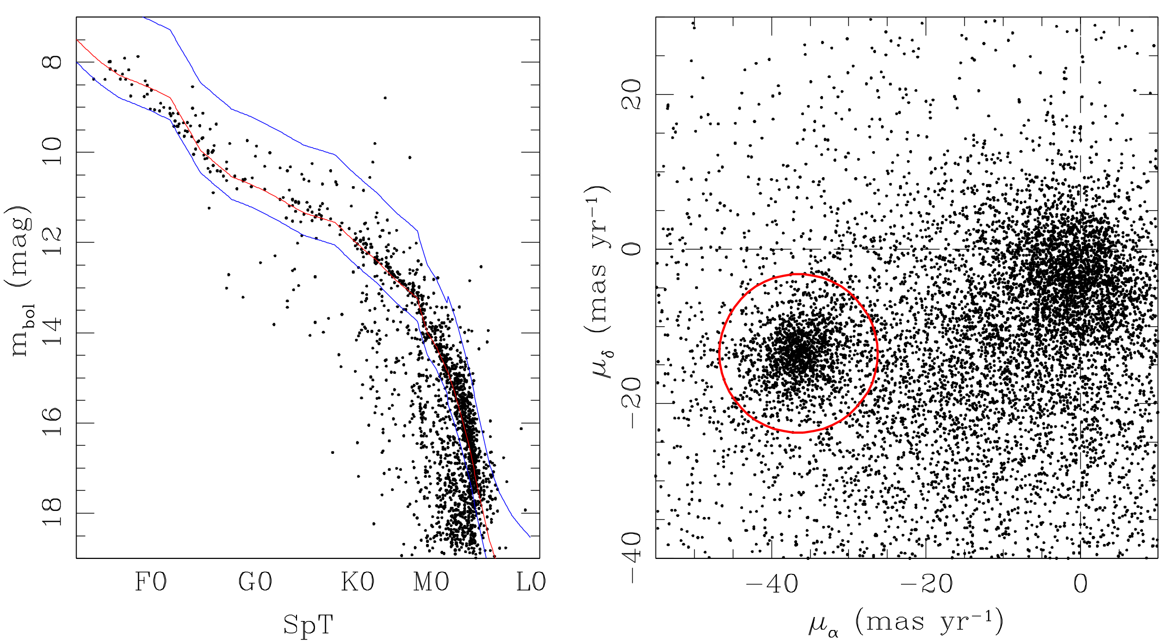

Fig. 4.— Left: An HR diagram for all objects which have proper motions within 8 mas yr^{-1} of the mean value for Praesepe. The field main sequence at the distance of Praesepe is shown with a red line; the blue lines outline our photometric selection limits. We identified few candidate members of Praesepe fainter than $m_{bol} = 17.5$. The possible sequence below and blueward of this point is not a genuine feature, but is instead a result of the large number of background early-mid M dwarfs with similar proper motions. These stars are spatially uniformly distributed, which also argues that they are not associated with the cluster. Right: A proper motion diagram for all objects which fall within our photometric selection limits. The red circle outlines the 2σ limit for a low-mass (M5) Praesepe member.

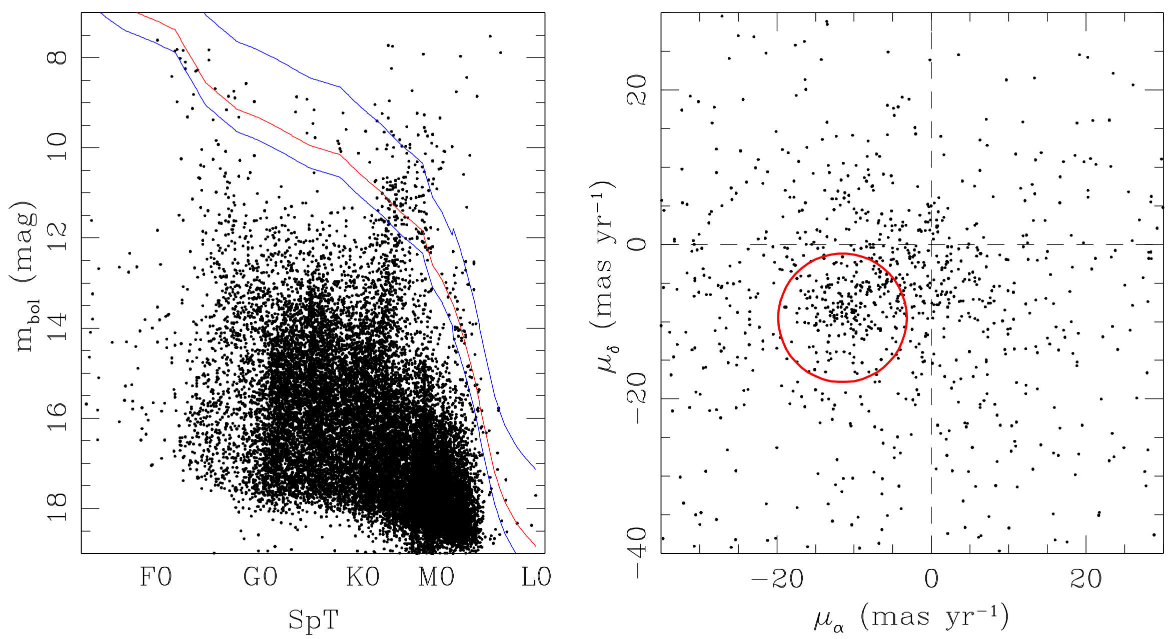

FIG. 5.— As in Figure 4, but for Coma Ber.

lack of data, 330 were identified as members with >80% confidence; the corresponding total completeness is 87%. We found that 15 stars were rejected for having inconsistent photometry and 24 were rejected for having inconsistent proper motions. Of the 15 stars rejected based on their photometry, 10 also possessed discrepant proper motions, suggesting that these sources are probably not genuine members of Praesepe and raising our completeness above 90%.

In Figure 6, we plot the completeness as a function of spectral type for members of Praesepe. We project that our survey is $\gtrsim$90% complete for spectral types F0 to M5, declining to 0% completeness for spectral types $\leq$A5 and $\geq$M7. The incompleteness for early-type stars is a result of the bright limit of UCAC2 data, while the incompleteness for late-type stars is a result of the detection limits for USNOB and 2MASS, which are reached nearly simultaneously for stars on the Praesepe and Coma Ber cluster sequences. The low-mass limit is also consistent with the results we summarize in Table 2 since we found no members with late M spectral types. We project that the 90% completeness limits should be marginally later (F5 and M6) for Coma Ber since it is closer and its members are brighter; the completeness is also lower for K stars due to contamination from background K giants.

These results are mostly consistent with our comparison to individual surveys. In Praesepe, we find excellent agreement in comparing our list of high-probability candidates with those of Jones & Stauffer (1991) and Hambly et al. (1995a); approximately 90% of each survey's high-confidence ($P_{mem} > 80\%$) candidates were also identified as high-confidence candidates by our survey. We find less overlap with the Praesepe survey of Adams et al. (2002) and the Coma Ber survey of Casewell et al. (2006). Of the candidates which Adams et al. identify as "high-confidence" ($P_{mem} > 20\%$ and $r < 4^o$), we only recovered 483 of 724 in our list of high-probability candidates. Casewell et al. used a moderately mass-dependent threshold, varying between $60\% < P_{mem} < 90\%$, to identify 60 new candidate members. Of these stars, we only recover 22.

For both of these surveys, much of the contamination can be traced to the use of 2MASS JHK photometry in the color-selection procedures. The K,$J-K$ color-magnitude sequence for dwarfs is nearly vertical for spectral types M0-M6, so it is difficult to distinguish a moderately brighter foreground star or moderately fainter background star from a genuine cluster member. We found that most of the unrecovered candidates were background M0-M2 stars that fall below the cluster sequence in our HR diagrams. For the survey by Casewell et al., we also found that the recovery fraction was exceptionally low ($\sim$20%) among K stars. We attribute this to contamination from background K giants, which affected both their survey and ours. We were able to identify only 13 of the $\sim$40 estimated K star members with high (>80%) confidence (Tables 4 and 2, respectively), suggesting that there should be only marginal overlap. Many of the candidates from the survey by Casewell et al. appear to be likely cluster members that were only identified at lower confidence ($50\% < P_{mem} < 80\%$) by our survey. However, most of their remaining candidates appear to have proper motions more consistent with nonmovement than comovement, suggesting that they are background giants.

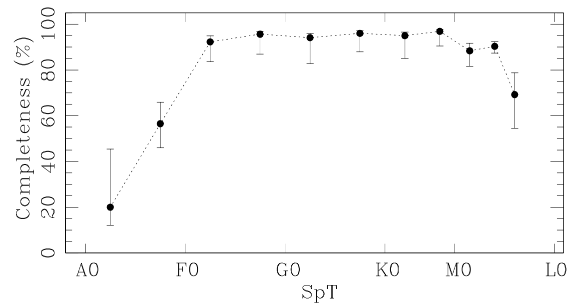

Fig. 6.— Completeness as a function of spectral type for our high-confidence sample of Praesepe members. The high-mass cutoff is a result of image saturation, while the low-mass cutoff is a result of nondetection by 2MASS and USNOB. We expect similar results for Coma Ber, but given that its members are $\sim$1.5 magnitudes brighter, the 90% completeness range will shift to later spectral types (F5-M6).

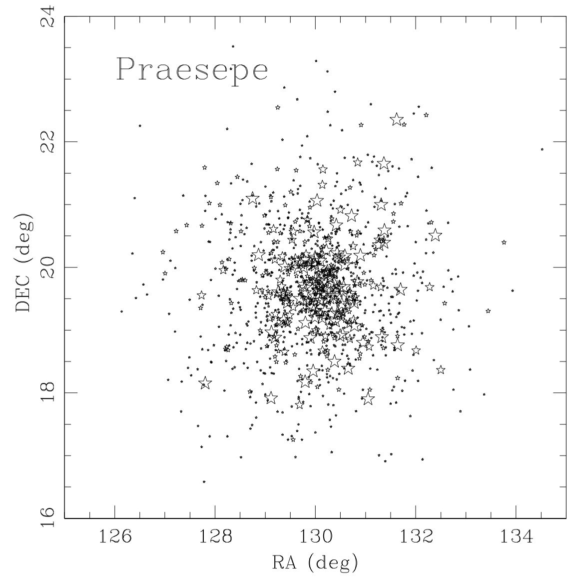

Fig. 7.— The spatial distribution of high-probability ($P_{mem} > 80\%$) members of Praesepe. The points are scaled to decreasing size for A-F, G, K, and M stars.

5. THE STRUCTURE AND EVOLUTION OF PRAESEPE AND COMA BER

Open clusters are thought to be the birthplaces of most stars, so cluster evolution plays a key role in setting the environment for early stellar evolution. Present-day cluster properties can be used to determine their past history and extrapolate their future lifetime; the three most important sets of properties are the spatial structure (as inferred from mass segregation), the cluster's stellar mass function, and the total cluster mass.

5.1. *Radial Distributions and Mass Segregation*

In Figures 7 and 8, we plot the spatial distribution of all high-probability candidate members of Praesepe and Coma Ber. In each plot, we have scaled the points to decreasing sizes for A-F, G, K, and M stars. These figures clearly illustrate the radial density profile of each cluster. However, it is perilous to infer cluster properties directly from the distribution of individual stars. The surface density as a function of radius, $\Sigma(r)$, is biased in our sample because each star's radial distance is factored into its membership probability.

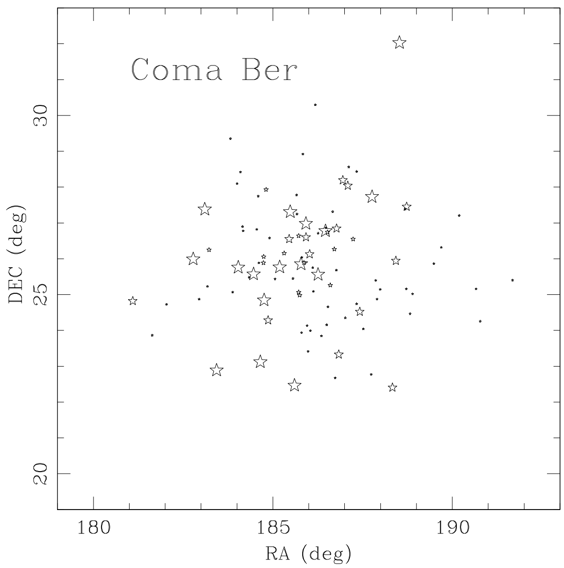

FIG. 8.— As in Figure 6, but for Coma Ber.

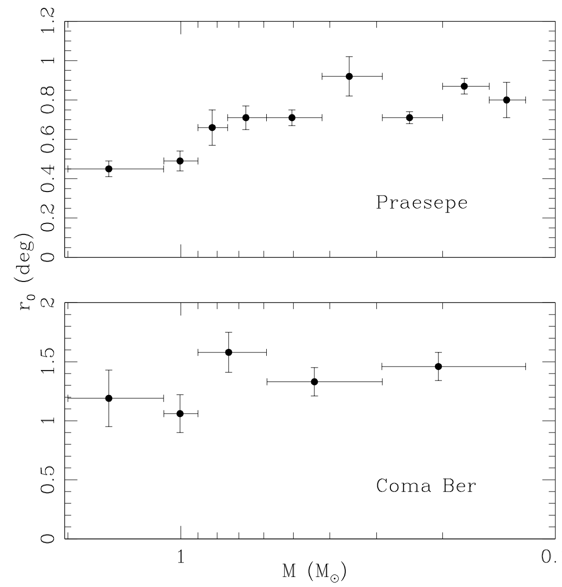

FIG. 9.— Scale radius $r_0(M)$ for each cluster. The scale radius in Praesepe clearly increases with decreasing mass, indicating the presence of mass segregation. The corresponding trend for Coma Ber is inconclusive due to low number statistics.

Ideally, cluster properties should be estimated using an unbiased method. Our parametric determination of the e-folding scale radius r_0 provides a natural diagnostic for quantifying the radial distribution and mass segregation of each cluster. This quantity allows us to study these properties without dependence on potentially biased measurements for individual stars, plus we can avoid arbitrary choices like the selection of a cutoff in P_{Mem}.

In Figure 9, we plot the mass-dependent function $r_0(M)$ for Praesepe (top) and Coma Ber (bottom). The uncertainties and upper limits were derived using the Monte Carlo methods described in Section 3.3. As we described in Section 4.2, the completeness of our sample drops for spectral types later than M5 in Praesepe and M6 in Coma Ber, so we do not plot results below these limit. In Praesepe, the scale radius increases significantly across the full mass range, following the power law $r_0 \propto M^{-0.25\pm0.06}$, which indicates the clear presence of mass segregation. Coma Ber shows no clear trend to indicate mass segregation, but the result is more uncertain: $r_0 \propto M^{-0.10\pm0.09}$. We expect Coma Ber to be less segregated than Praesepe due to its younger age and lower stellar density, but a trend with the same slope as in Praesepe is inconsistent by only $<2\sigma$.

5.2. *Mass Functions*

The present-day mass function provides an important test of the evolutionary state of each cluster, assuming clusters form with a common initial mass function. Dynamical evolution (mass segregation and tidal stripping) will preferentially remove low-mass cluster members, so evolved clusters should show large deficits of low-mass stars. The mass function is defined as $\Psi(M) = dN/dM$, such that $\Psi(M)$ is the number of stars with masses in the interval $(m, m + dm)$. We have constructed mass functions using the spectral type intervals defined in Section 3.3, where the number of stars is the quantity N_c determined in our fitting routine. These mass bins have uneven width, so we normalized each value to represent the number of stars per interval 0.1 $M_\odot$.

In Figure 10, we plot the cluster mass functions for Praesepe (top) and Coma Ber (bottom). Each function can be fit with a single power law, $\Psi \propto M^{-\alpha}$, where $\alpha = 1.4 \pm 0.2$ for Praesepe and $\alpha = 0.6 \pm 0.3$ in Coma Ber. Both power laws are significantly shallower than a Salpeter IMF ($\alpha = 2.35$), but the Praesepe power law agrees well with the present-day mass function for nearby field stars ($\alpha = 1.35 \pm 0.2$ for 1.0-0.1 $M_\odot$; Reid et al. 2002). Previous studies of the mass function for young clusters and unbound associations have also found similar slopes in this mass range ($\alpha \sim 1.25\pm0.25$; Hillenbrand 2004 and references therein).

Neither cluster has a sharp decline in the number of low-mass members within the mass range of our sample. Chappelle et al. (2005) found that the Praesepe mass function may drop sharply just below the limit of our survey ($\lesssim 0.12$ $M_\odot$), which could denote the effect of tidal stripping of low-mass members, but we can not confirm or disprove this result. The shallower power law of the Coma Ber mass function suggests that some of its low-mass members may have been removed, but it appears that any limit for the total depletion of cluster members must lie below ~ 0.12 $M_\odot$ as well.

5.3. *Cluster Masses and Tidal Radii*

We have derived the total masses of each cluster by integrating the mass functions that we described in the previous section. Since these mass functions do not include high-mass stars, we have manually added the masses of known high-mass cluster members which were not identified in our survey, comprising $\sim 1/3$ of the total mass. We identified the missing Praesepe members using our high-confidence cluster sample (Section 2.5), plus the five evolved giant members identified by Klein-Wassink (1927), while the corresponding members of Coma Ber were identified from the original member list of Trumpler et al. (1937).

We have not included any of the candidate Coma Ber members suggested by subsequent surveys (Bounatiro 1993; Odenkirchen et al. 1998) since it has been suggested that a significant fraction of these candidates may be spurious (Ford et al. 2001). We also did not attempt

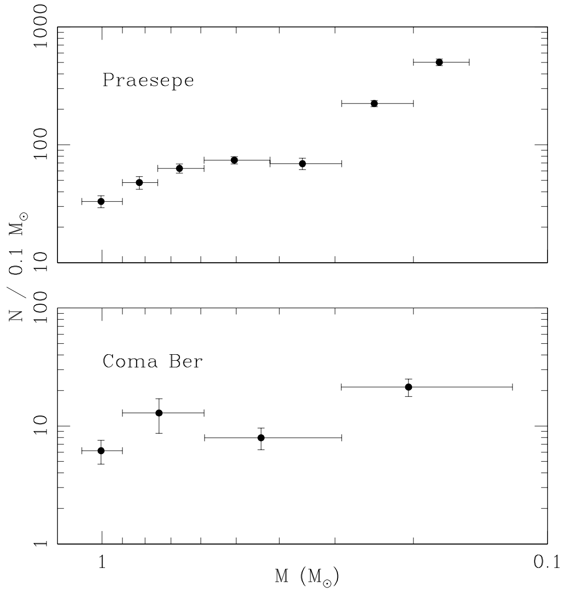

FIG. 10.— Mass functions, $\Psi(M) = dN/dM$, for Praesepe and Coma Ber. We derived these results from our best-fit values for $N_c(M)$, as described in Section 3.3 and Table 2; each spectral type bin corresponds to a different width in mass, so we normalized all bins to report the number of stars per 0.1 $M_\odot$.

to include any substellar or near-substellar members of Praesepe or Coma Ber since they are not thought to comprise a significant fraction of the cluster mass (e.g. Chappelle et al. 2005).

Based on this analysis, we estimate that the total stellar populations for Praesepe and Coma Ber consist of 1050±30 stars earlier than M5 and 145±15 stars earlier than M6, respectively. The corresponding total masses are 550±40 $M_\odot$ and 112±16 $M_\odot$. Given these cluster masses, we can also estimate the tidal radius of each cluster:

$$r_t = [\frac{GM_c}{4A(A-B)}]^{1/3}$$

(King 1962), where A and B are the Oort constants (A = 14.4 km s^{-1} kpc^{-1}; B = −12.0 km s^{-1} kpc^{-1}; Kerr & Lynden-Bell 1986). We derive estimated tidal radii of 11.5±0.3 pc (3.5±0.1^o) for Praesepe and 6.8±0.3 pc (4.3±0.2^o) for Coma Ber. In both cases, these radii are approximately half the radius of our search area (7^o). This suggests that our survey should be spatially complete for all bound members.

Finally, we note that all of these results are likely to be marginally underestimated due to unresolved stellar multiplicity. Given the typical binary frequency found for open clusters (∼30%; Patience et al. 2002) and the mean mass ratio for binaries (∼0.3-0.7), the magnitude of this mass underestimate should be ∼20%. We will address this problem in a future publication that specifically studies stellar multiplicity in both clusters.

6. SUMMARY

We have combined archival survey data from the SDSS, 2MASS, USNOB1.0, and UCAC-2.0 surveys to calculate proper motions and photometry for ∼5 million sources in the fields of the open clusters Praesepe and Coma Ber. Of these sources, 1010 stars in Praesepe and 98 stars in Coma Ber have been identified as candidate members with probability >80%; 442 and 61, respectively, are newly identified as high-probability candidates for the first time. We estimate that this survey is >90% complete across a wide range of spectral types (F0 to M5 in Praesepe, F5 to M6 in Coma Ber).

We have also investigated each cluster's mass function and the stellar mass dependence of their radii in order to quantify the role of mass segregation and tidal stripping in shaping the present-day mass function and spatial distribution. Praesepe shows clear evidence of mass segregation, but if significant tidal stripping has occurred, it has affected only members near and below the substellar boundary ($\lesssim$0.15 $M_\odot$). Low number statistics make it difficult to quantify the level of mass segregation in Coma Ber. The shallower slope of its mass function suggests that some mass loss has occurred, but any mass limit for total depletion of the cluster population must fall below the limit of our survey.

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APPENDIX

STELLAR SED LIBRARY

There is no single source in the literature that describes all of the SED data that we require, so we compiled a preliminary set of models from a heterogeneous set of empirical observations. We then optimized these models by comparing the color-magnitude sequences to the single-star sequence of our high-confidence Praesepe sample (Section 2.5).

Luminosities and optical colors for our high-mass and intermediate-mass stellar models (spectral types B8 to K7) were based on the absolute UBV magnitudes of Schmidt-Kaler (1982), which we converted to SDSS absolute magnitudes using the color transformations of Jester et al. (2005). We then used the optical-NIR colors ($V-K$, $J-K$, and $H-K$) of Bessell and Brett (1988) to estimate JHK absolute magnitudes, and converted these values to the 2MASS filter system using the NIR color transformations of Carpenter et al. (2001). We estimated absolute bolometric magnitudes for each model using the bolometric corrections of Masana et al. (2005).

For M dwarfs (M0-L0), we based our models on the fourth-order polynomial relation of absolute JHK vs spectral

TABLE 5
STELLAR SEDS

SpT	M_u	M_g	M_r	M_i	M_z	M_J	M_H	M_K	M_{bol}	T_{eff}	M ($M_\odot$)
B8	0.32	-0.39	-0.04	0.34	0.62	0.01	0.10	0.11	-1.00	11900	3.8
A0	1.58	0.47	0.72	1.04	1.28	0.54	0.58	0.56	0.30	9520	2.9
A2	2.41	1.22	1.39	1.65	1.87	1.12	1.15	1.12	1.10	8970	2.4
A5	3.14	1.88	1.95	2.15	2.32	1.53	1.52	1.48	1.75	8200	2.0
A7	3.47	2.21	2.23	2.40	2.55	1.75	1.71	1.66	2.08	7580	1.8
F0	3.94	2.77	2.68	2.79	2.90	2.10	2.01	1.96	2.61	7200	1.6
F2	4.23	3.10	2.96	3.04	3.13	2.32	2.20	2.14	2.89	6890	1.5
F5	5.01	3.90	3.68	3.69	3.74	2.85	2.67	2.61	3.61	6440	1.25
F8	5.76	4.60	4.29	4.26	4.28	3.31	3.08	3.01	4.24	6200	1.17
G0	6.09	4.89	4.52	4.44	4.44	3.53	3.27	3.20	4.47	6030	1.11
G2	6.35	5.07	4.65	4.54	4.51	3.64	3.38	3.30	4.60	5860	1.06
G5	6.78	5.40	4.92	4.79	4.74	3.86	3.56	3.48	4.89	5770	1.04
G8	7.55	6.03	5.50	5.32	5.25	4.31	3.95	3.86	5.30	5570	0.98
K0	8.08	6.38	5.77	5.55	5.45	4.49	4.10	4.00	5.69	5250	0.90
K2	8.89	6.94	6.23	5.94	5.80	4.80	4.35	4.24	6.08	4900	0.82
K4	9.90	7.62	6.77	6.40	6.20	5.08	4.56	4.43	6.55	4590	0.75
K5	10.36	7.98	7.03	6.59	6.35	5.20	4.64	4.51	6.68	4350	0.70
K7	11.27	8.59	7.45	6.90	6.58	5.46	4.85	4.70	6.89	4060	0.63
M0	12.46	9.90	8.50	7.83	7.46	6.04	5.37	5.18	7.60	3850	0.59
M1	13.00	10.47	9.00	8.12	7.64	6.33	5.68	5.47	7.97	3680	0.54
M2	13.66	11.36	9.76	8.73	8.15	6.73	6.09	5.86	8.44	3510	0.42
M3	14.55	12.37	10.77	9.44	8.74	7.31	6.68	6.44	9.09	3350	0.29
M4	15.83	13.55	11.99	10.48	9.64	8.10	7.49	7.22	9.92	3180	0.20
M5	17.38	15.22	13.67	11.76	10.71	9.08	8.47	8.16	11.01	3010	0.15
M6	18.71	16.56	14.99	12.98	11.88	10.15	9.50	9.16	12.06	2840	0.12
M7	19.74	17.82	16.21	13.94	12.68	10.76	10.08	9.69	12.70	2720	0.11
M8	21.05	19.40	17.60	14.83	13.21	11.19	10.46	10.03	13.13	2600	0.102
M9	21.72	19.93	18.19	15.38	13.69	11.49	10.73	10.26	13.43	2400	0.088
L0	22.33	20.98	18.48	15.85	14.01	11.76	10.96	10.44	13.69	2200	0.078

type described by Cruz et al. (2007); they only explicitly defined this relation for spectral types later than M6, so we used 2MASS observations of stars in the CNS3 catalog (Gliese & Jahreiss 1991) and the 8 pc sample (Reid et al. 2002) to estimate the appropriate polynomial relation for M0-M5 stars. We combined these results with the $r-i$, $i-z$, and $z-J$ colors of West et al. (2005) and the $u-g$ and $g-r$ colors of Bochanski et al. (2007). We estimated absolute bolometric magnitudes using the bolometric corrections of Leggett (1992) and Leggett et al. (2002).

Finally, we optimized our set of spectral type models by comparing theoretical color-color and color-magnitude sequences to the empirical color-color and color-magnitude sequences of our sample of high-confidence Praesepe members. We found that the absolute magnitudes of our models differed from the empirical sequence at spectral types F2-F8 and at the K/M boundary, so we adjusted these absolute magnitudes to match the empirical sequences. We did not find any need to adjust the colors of any model, which suggests that any discrepancies are a result of the bolometric corrections.

In Table 5, we list our final set of spectral type models. Our fitting routine subsamples this model grid by linearly interpolating to predict values for intermediate spectral types; our final grid of models (491 in all) proceeds from B8 to L0 in steps of 0.1 subclasses, following the recent nomenclature trend to proceed directly from K5 to K7 to M0, not using subclasses K6, K8, or K9.

For high-mass stars ($\leq$F2), we directly adopted masses from the models of Schmidt-Kaler (1982). For lower-mass stars, we adopted effective temperatures for each model using the dwarf temperature scales of Schmidt-Kaler (1982) (for spectral types $\leq$M0) and Luhman (1999) (for spectral types >M0). We then combined these T_{eff} values with the 500 Myr isochrones of Baraffe et al. (1998) to estimate stellar masses. The appropriate mixing length has been found to change with mass (Yildiz et al. 2006), so for masses >0.6 $M_\odot$, we used the models with a mixing length of H_P. For masses <0.6 $M_\odot$, we used the models with a mixing length of 1.9 H_P.

Several studies (e.g. Hillenbrand & White 2004; Lopez-Morales 2007) have found that theoretical models can underpredict masses, so these values should be considered with some caution. The most uncertain mass range is <0.5 $M_\odot$. Observational calibrations suggest that the models underpredict masses by ~10-20% in the mass range of 0.2-0.5 $M_\odot$, and the models are almost completely uncalibrated for lower masses. We have addressed this problem by increases the masses of M1 stars by 5%, M2 stars by 10%, and later-type stars by 20%; these adopted values are more consistent with the observations (e.g. Lacy 1977; Delfosse et al. 1999; Creevy et al. 2005; Lopez-Morales & Ribas 2005).

We list all of the adopted values of M and T_{eff} in Table 5.

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TABLE 3
Candidate Members of Praesepe

ID	SpT	m_{bol} (mag)	μ_α	μ_δ (mas yr^{-1})	σ_μ	P_{mem} (%)	Previous ID
2MASS J08401535+1959394	A4.6±4.9	8.37±0.02	-35.8	-12.3	0.7	100.0	KW271 (F1; Abt 1986)
2MASS J08405693+1956055	A5.7±2.1	8.38±0.02	-36.1	-15.4	1.2	100.0	KW350 (A8; Abt 1986)
2MASS J08462889+2221079	A6.1±2.3	8.00±0.02	-38.3	-14.8	0.5	88.7	
2MASS J08383786+1959231	A6.2±2.0	7.99±0.01	-37.4	-13.6	0.7	100.0	KW114 (A8; Abt 1986)
2MASS J08390359+1959591	A6.2±2.0	8.15±0.01	-34.2	-13.3	0.6	100.0	KW143 (A8; Abt 1986)
2MASS J08421080+1856037	A6.3±1.9	7.74±0.01	-34.1	-12.1	1.1	99.2	KW449 (A7; Abt 1986)
2MASS J08411377+1955191	A6.7±1.9	8.19±0.01	-36.9	-12.6	0.6	100.0	KW375 (A7; Abt 1986)
2MASS J08364800+1852580	A7.2±2.3	8.38±0.01	-35.4	-13.6	0.9	99.8	KW538 (A9; Abt 1986)
2MASS J08405247+2015594	A7.4±2.2	8.26±0.02	-34.6	-12.7	0.7	100.0	KW340 (F0; Abt 1986)
2MASS J08420650+1924405	A7.6±2.1	7.91±0.01	-38.4	-12.1	0.9	99.8	KW445 (A8; Abt 1986)
2MASS J08390909+1935327	A7.7±2.2	8.38±0.02	-35.3	-12.0	0.5	99.9	KW154 (A9; Abt 1986)
2MASS J08374070+1931063	A8.0±3.2	8.17±0.02	-34.8	-12.5	0.7	99.9	KW 45 (A9; Abt 1986)
2MASS J08384695+1930033	A8.2±2.3	8.75±0.02	-34.8	-12.6	0.7	99.9	KW124 (F1; Allen & Strom 1995)
2MASS J08403296+1911395	A8.3±2.7	8.49±0.02	-37.4	-14.2	0.7	99.9	KW318 (A9; Abt 1986)
2MASS J08411840+1915394	A8.9±2.3	7.87±0.02	-37.4	-12.9	0.7	99.9	KW385 (A8; Abt 1986)
2MASS J08395838+2009298	A9.5±2.2	8.76±0.01	-36.0	-13.8	1.6	100.0	KW226 (F1; Abt 1986)
2MASS J08415314+2009340	A9.6±2.3	8.42±0.01	-38.2	-13.7	0.7	100.0	KW429 (A9; Abt 1986)
2MASS J08452825+2023435	A9.8±2.2	8.52±0.01	-38.5	-13.1	0.6	99.6	A1501
2MASS J08425307+2049092	A9.8±2.7	8.71±0.02	-38.9	-14.4	0.7	99.6	A1196
2MASS J08413620+1908335	F0.1±2.1	9.04±0.01	-36.0	-14.3	0.7	99.9	KW411 (F2; Allen & Strom 1995)
2MASS J08373381+2000492	F0.2±2.8	8.62±0.02	-35.7	-13.1	0.6	100.0	KW 38 (A9; Abt 1986)
2MASS J08493389+2030290	F0.5±2.0	9.06±0.02	-38.8	-13.0	0.6	95.2	
2MASS J08395432+2033368	F1.0±1.7	9.08±0.01	-35.6	-14.0	0.6	100.0	KW218 (F6; Bidelman 1956)
2MASS J08411067+1949465	F1.1±1.9	8.91±0.01	-37.8	-13.7	0.6	100.0	KW370 (F3; Corbally & Garrison 1986)
2MASS J08394960+1820506	F1.1±2.2	8.98±0.02	-34.1	-16.2	1.1	91.6	JS320
2MASS J08422162+2010539	F1.4±1.9	9.00±0.02	-36.8	-14.4	0.7	100.0	KW459 (F3; Bidelman 1956)
2MASS J08463327+1845394	F2.0±1.8	9.02±0.02	-36.9	-11.0	1.1	96.9	JS632
2MASS J08402614+1941111	F2.0±1.7	9.14±0.02	-37.2	-11.9	0.6	100.0	KW295 (F5; Corbally & Garrison 1986)
2MASS J08390523+2007018	F2.1±2.1	9.19±0.02	-35.7	-12.1	0.6	100.0	KW146 (F5; Bidelman 1956)
2MASS J08400771+2103458	F2.3±1.6	9.13±0.01	-38.5	-15.3	0.6	99.5	JS335
2MASS J08275813+2206074	F2.4±1.7	9.42±0.01	-36.1	-15.8	0.6	58.9	II 490
2MASS J08415782+1854422	F2.5±2.5	9.25±0.02	-34.3	-11.1	0.9	98.4	KW439 (F5; Bidelman 1956)
2MASS J08414229+1939379	F2.5±1.9	9.30±0.02	-37.3	-13.8	0.6	100.0	KW416 (F5; Corbally & Garrison 1986)
2MASS J08451801+1853254	F2.7±1.6	9.42±0.01	-36.9	-14.1	1.1	99.7	
2MASS J08362985+1857570	F2.8±1.6	9.14±0.01	-34.6	-12.6	1.2	99.6	KW536 (F6; Bidelman 1956)
2MASS J08414001+2040199	F2.8±1.7	9.42±0.01	-37.8	-14.1	0.7	99.9	JS446 (F6; Bidelman 1956)
2MASS J08404608+1918346	F2.9±1.8	9.36±0.02	-37.1	-13.2	0.9	100.0	KW332 (F4; Allen & Strom 1995)
2MASS J08412698+1932329	F2.9±1.4	9.57±0.01	-37.3	-12.4	0.7	100.0	KW396 (F5; Ramberg 1938)
2MASS J08395807+1912058	F3.3±1.5	9.35±0.01	-37.4	-12.5	0.8	99.9	KW227 (F3; Allen & Strom 1995)
2MASS J08453049+2035245	F3.4±1.7	9.64±0.02	-37.1	-14.7	0.6	99.7	JS600
2MASS J08400130+2008082	F3.5±2.0	9.52±0.02	-36.0	-14.5	0.6	100.0	KW239 (F6; Corbally & Garrison 1986)
2MASS J08391014+1940423	F3.7±1.7	9.34±0.01	-36.1	-13.7	0.8	100.0	KW155 (F4; Corbally & Garrison 1986)
2MASS J08451468+2059512	F3.7±1.7	9.40±0.01	-38.2	-15.9	0.6	97.7	JS589
2MASS J08424441+1934479	F3.7±2.3	9.54±0.02	-38.2	-13.5	0.6	99.9	KW478 (F6; Bidelman 1956)
2MASS J08380772+1703024	F3.9±2.3	9.63±0.02	-35.6	-10.9	1.4	71.4	
2MASS J08372793+1933451	F4.0±1.6	9.41±0.01	-36.6	-13.2	0.7	100.0	KW 31 (F8; Ramberg 1938)
2MASS J08424071+1932354	F4.1±2.5	9.65±0.02	-38.4	-12.7	0.6	99.9	KW472 (F5; Ramberg 1938)
2MASS J08370203+1936171	F4.2±1.6	9.02±0.02	-34.3	-13.0	0.6	99.8	KW 16 (F6; Bidelman 1956)
2MASS J08430705+1904060	F4.3±1.8	9.31±0.02	-39.4	-10.2	0.7	85.0	KW496 (F8; Bidelman 1956)
2MASS J08400062+1948235	F4.3±1.6	10.04±0.01	-36.3	-13.1	0.6	100.0	KW238 (F8; Ramberg 1938)
2MASS J08395908+2001532	F4.5±1.9	9.18±0.01	-36.4	-16.2	0.7	99.9	KW232 (F5; Bidelman 1956)
2MASS J08395506+2003541	F4.5±1.6	9.93±0.01	-37.5	-13.9	1.2	100.0	KW222 (F8; Ramberg 1938)
2MASS J08421549+1941156	F4.7±1.7	9.77±0.01	-37.6	-15.0	1.1	99.9	KW454 (F5; Ramberg 1938)
2MASS J08402554+1928328	F4.8±2.1	9.75±0.02	-36.8	-13.3	0.8	100.0	KW293 (F5; Allen & Strom 1995)
2MASS J08372819+1909443	F4.9±2.3	9.41±0.02	-36.2	-13.4	0.8	99.9	KW 34 (F6; Bidelman 1956)
2MASS J08401231+1938222	F5.1±1.7	9.69±0.01	-36.9	-14.5	0.7	100.0	KW268 (F5; Allen & Strom 1995)
2MASS J08390283+1943289	F5.2±1.8	9.13±0.01	-35.8	-11.2	0.7	99.9	KW142 (F7; Corbally & Garrison 1986)
2MASS J08400491+1943452	F5.2±1.6	9.68±0.01	-36.1	-12.5	0.7	100.0	KW250 (F5; Allen & Strom 1995)
2MASS J08395234+1918455	F5.3±1.7	10.06±0.01	-34.8	-14.3	0.7	99.9	KW217 (F7; Allen & Strom 1995)
2MASS J08450422+2021278	F5.3±1.6	10.16±0.01	-39.4	-14.8	0.6	98.4	JS587
2MASS J08413154+1830021	F5.4±1.7	10.14±0.01	-35.3	-14.6	1.2	99.6	JS437
2MASS J08405252+1928595	F5.6±1.8	10.13±0.01	-37.0	-13.2	0.7	100.0	KW341 (F8; Ramberg 1938)
2MASS J08423681+1823199	F5.7±1.8	9.96±0.01	-34.5	-15.0	1.6	98.3	JS495
2MASS J08434815+1848028	F5.7±1.9	9.99±0.02	-35.2	-9.5	1.2	81.4	KW549 (F8; Ramberg 1938)
2MASS J08352805+2011467	F5.7±2.1	9.99±0.02	-35.7	-15.1	0.7	99.8	JS 88
2MASS J08414549+1916023	F5.7±1.6	10.02±0.01	-38.1	-13.2	0.7	99.9	KW421 (F7; Allen & Strom 1995)
2MASS J08471411+1623473	F5.7±1.7	10.36±0.01	-37.7	-12.6	1.2	52.4	
2MASS J08422012+2002117	F5.9±2.2	9.48±0.02	-35.7	-15.6	0.6	99.9	KW458 (F8; Ramberg 1938)
2MASS J08464732+1938410	F5.9±1.9	10.43±0.02	-36.5	-13.9	0.6	99.7	JS638
2MASS J08441195+1754079	F6.0±2.1	9.86±0.02	-36.4	-10.5	1.3	88.0	
2MASS J08411002+1930322	F6.1±1.8	10.00±0.01	-36.9	-12.0	0.8	100.0	KW371 (F7; Allen & Strom 1995)
2MASS J08402231+2006243	F6.2±1.8	9.96±0.01	-36.6	-12.2	0.7	100.0	KW282 (F8; Ramberg 1938)
2MASS J08382429+2006217	F6.2±2.0	10.29±0.02	-36.3	-13.1	0.7	100.0	KW100 (G0; Ramberg 1938)
2MASS J08311296+1809132	F6.3±2.4	9.85±0.02	-34.6	-12.1	1.1	86.9	A 70

TABLE 3
Candidate Members of Praesepe

2MASS J08452794+2139128	F6.6±2.0	10.40±0.01	-36.2	-15.2	0.6	98.5	JS596
2MASS J08394575+1922011	F6.6±1.9	10.41±0.01	-35.4	-12.8	0.9	100.0	KW208 (G1; Corbally & Garrison 1986)
2MASS J08391217+1906561	F6.9±1.9	10.42±0.01	-37.0	-13.4	0.7	99.9	KW162 (F9; Allen & Strom 1995)
2MASS J08432019+1946086	F7.1±2.2	10.54±0.01	-39.4	-13.4	0.6	99.6	KW508 (G0; Allen & Strom 1995)
2MASS J08433553+2011225	F7.2±2.6	10.11±0.02	-39.3	-14.7	0.6	99.4	KW515 (F8; Ramberg 1938)
2MASS J08402271+1927531	F7.2±2.1	10.52±0.01	-37.8	-13.3	1.0	100.0	KW288 (G0; Corbally & Garrison 1986)
2MASS J08355455+1808577	F7.2±2.5	10.64±0.02	-33.8	-10.5	1.1	63.3	JS103
2MASS J08391096+1810335	F7.5±3.2	10.21±0.02	-37.8	-14.8	1.3	99.0	JS276
2MASS J08414382+2013368	F7.5±2.6	10.36±0.01	-37.4	-15.7	0.9	99.9	KW418 (G0; Ramberg 1938)
2MASS J08362782+1754535	F7.5±2.3	10.62±0.01	-36.5	-11.4	1.1	96.8	JS134
2MASS J08401762+1947152	F7.8±2.9	9.80±0.02	-35.5	-13.6	1.0	100.0	KW275 (G1; Corbally & Garrison 1986)
2MASS J08374660+1926181	F8.3±3.3	10.52±0.02	-36.1	-13.4	0.7	100.0	KW 49 (F9; Allen & Strom 1995)
2MASS J08415587+1941229	F8.5±3.0	10.81±0.01	-37.6	-12.1	1.2	99.9	KW432 (G2; Allen & Strom 1995)
2MASS J08345963+2105492	F8.9±3.2	10.95±0.02	-34.6	-16.0	0.6	96.7	JS 76
2MASS J08412584+1956369	F9.1±2.9	10.60±0.01	-36.3	-13.7	0.8	100.0	KW392 (G0; Allen & Strom 1995)
2MASS J08385001+2004035	F9.1±3.0	10.64±0.01	-36.6	-15.4	0.7	100.0	KW127 (G0; Ramberg 1938)
2MASS J08393553+1852367	F9.3±2.9	10.60±0.01	-37.4	-13.1	1.2	99.9	KW196 (G0; Ramberg 1938)
2MASS J08430593+1926152	F9.5±3.2	9.74±0.01	-36.6	-13.8	0.9	99.9	KW495 (F8; Ramberg 1938)
2MASS J08412869+1944481	F9.9±3.0	10.76±0.01	-39.0	-13.5	0.6	99.9	KW399 (G1; Allen & Strom 1995)
2MASS J08373307+1839156	G0.0±3.5	10.57±0.02	-37.5	-14.3	1.2	99.6	KW541 (G0; Ramberg 1938)
2MASS J08393042+2004087	G0.3±4.1	10.08±0.02	-35.8	-13.4	0.8	100.0	KW182 (F8; Ramberg 1938)
2MASS J08374235+1908015	G0.4±4.3	9.86±0.02	-36.6	-13.5	0.7	99.9	KW 47 (F8; Ramberg 1938)
2MASS J08305546+1933197	G0.6±3.2	10.67±0.01	-33.5	-15.2	0.7	89.0	
2MASS J08282095+1950386	G0.9±3.2	10.73±0.01	-33.2	-12.1	0.7	68.4	
2MASS J08392498+1927336	G1.2±3.3	10.31±0.01	-37.0	-14.9	0.7	99.9	KW181 (G0; Corbally & Garrison 1986)
2MASS J08404832+1955189	G1.2±3.3	10.82±0.01	-35.5	-13.0	1.2	100.0	KW335 (G2; Allen & Strom 1995)
2MASS J08400171+1859595	G1.7±3.2	10.01±0.01	-36.5	-11.7	1.1	99.8	KW244 (F6; Allen & Strom 1995)
2MASS J08424525+1851362	G2.6±3.1	10.50±0.01	-34.4	-10.5	1.3	97.3	JS738
2MASS J08402327+1940236	G2.7±3.7	10.34±0.02	-37.0	-11.8	0.7	99.9	KW287 (G0; Ramberg 1938)
2MASS J08402743+1916409	G2.7±3.1	10.99±0.01	-33.3	-12.1	1.2	99.3	KW301 (G3; Allen & Strom 1995)
2MASS J08415924+2055072	G2.7±3.1	11.04±0.01	-38.0	-14.9	1.0	99.7	JS465
2MASS J08495998+1821541	G3.0±3.2	11.00±0.02	-35.9	-12.4	1.3	92.8	A1951
2MASS J08410737+1904164	G3.1±2.9	9.98±0.01	-39.9	-14.1	0.6	99.0	KW365 (F7; Allen & Strom 1995)
2MASS J08403357+2118547	G3.3±2.9	11.46±0.01	-37.2	-10.9	0.7	99.1	JS368
2MASS J08443703+1942390	G3.4±3.1	10.41±0.01	-34.6	-14.6	1.2	99.6	KW556 (G0; Ramberg 1938)
2MASS J08423225+1923463	G3.6±2.9	10.83±0.01	-36.5	-12.5	0.9	99.9	KW466 (G2; Allen & Strom 1995)
2MASS J08372222+2010373	G3.6±3.0	11.19±0.01	-36.0	-14.5	0.7	99.9	KW 30 (G5; Ramberg 1938)
2MASS J08432257+2140181	G3.7±2.6	10.32±0.01	-38.8	-14.6	0.6	97.7	JS532
2MASS J08415437+1915266	G3.9±2.8	11.03±0.01	-34.8	-13.2	1.6	99.8	KW434 (G5; Allen & Strom 1995)
2MASS J08391499+2012388	G3.9±2.9	11.06±0.01	-35.2	-14.7	1.1	99.9	KW164 (G5; Ramberg 1938)
2MASS J08371829+1941564	G3.9±2.7	11.18±0.01	-37.2	-15.2	1.9	99.9	KW 27 (G5; Allen & Strom 1995)
2MASS J08384447+1748294	G3.9±2.8	11.52±0.01	-36.2	-15.9	1.3	95.9	
2MASS J08371148+1948132	G4.2±2.5	11.09±0.01	-35.5	-12.8	0.7	99.9	KW 23 (G0; Ramberg 1938)
2MASS J08404248+1933576	G4.2±2.7	11.10±0.01	-36.7	-13.8	0.7	100.0	KW326 (G4; Allen & Strom 1995)
2MASS J08403169+1951010	G4.2±2.7	11.31±0.01	-35.6	-12.9	0.7	100.0	KW309 (K3; Adams et al. 2002)
2MASS J08375208+1959138	G4.5±2.8	11.10±0.02	-38.8	-14.6	0.7	99.9	KW 58 (G5; Ramberg 1938)
2MASS J08381497+2034041	G4.5±2.4	11.12±0.02	-35.4	-15.0	0.7	99.9	KW543 (G5; Ramberg 1938)
2MASS J08450106+2026319	G4.7±2.4	11.54±0.01	-35.6	-15.0	0.7	99.6	JS585
2MASS J08404189+1913255	G4.8±2.2	10.49±0.01	-35.9	-13.0	1.4	99.9	KW325 (F9; Allen & Strom 1995)
2MASS J08451310+1941127	G5.0±2.1	10.60±0.01	-36.7	-14.2	1.0	99.8	JS588
2MASS J08364572+2007262	G5.0±2.1	11.37±0.01	-36.0	-10.8	1.3	99.7	KW537 (G5; Ramberg 1938)
2MASS J08364896+1915265	G5.3±2.3	11.11±0.02	-36.3	-12.8	2.3	99.8	KW539 (G4; Allen & Strom 1995)
2MASS J08482783+1820439	G5.3±2.1	11.19±0.01	-35.9	-9.3	1.9	52.9	JS660
2MASS J08403360+1840282	G5.4±1.9	11.28±0.01	-34.9	-11.9	1.3	99.4	KW546 (G8; Ramberg 1938)
2MASS J08403992+1940092	G5.5±2.0	10.64±0.01	-35.5	-11.3	2.2	99.9	KW322 (G2; Corbally & Garrison 1986)
2MASS J08430055+2020161	G5.6±1.9	11.21±0.01	-37.3	-16.0	1.1	99.7	KW488 (G5; Ramberg 1938)
2MASS J08480173+1840376	G5.8±2.0	10.25±0.02	-36.4	-13.6	1.4	98.2	JS655
2MASS J08424250+1905589	G5.8±1.8	11.33±0.01	-37.4	-13.5	1.1	99.8	KW476 (G8; Ramberg 1938)
2MASS J08364003+2036352	G5.8±1.8	11.51±0.01	-35.9	-15.3	1.3	99.8	JS142
2MASS J08400968+1937170	G5.8±1.7	11.58±0.01	-33.9	-10.5	1.9	99.4	KW263 (G9; Allen & Strom 1995)
2MASS J08395084+1933020	G6.1±1.8	11.44±0.01	-36.1	-13.9	2.0	100.0	KW213
2MASS J08403623+2133421	G6.2±1.6	11.40±0.01	-36.8	-14.2	1.1	99.6	
2MASS J08403184+2012060	G6.5±1.6	11.27±0.01	-36.4	-13.9	1.3	100.0	KW304 (K3; Adams et al. 2002)
2MASS J08380808+2026223	G6.5±1.9	11.37±0.02	-36.4	-14.4	1.6	99.9	KW542 (G8; Ramberg 1938)
2MASS J08411031+1949071	G6.6±1.5	11.19±0.01	-36.5	-13.2	0.7	100.0	KW368 (K3; Adams et al. 2002)
2MASS J08413384+1958087	G6.7±1.6	11.41±0.01	-39.4	-14.4	0.7	99.8	KW403 (K3; Adams et al. 2002)
2MASS J08375703+1914103	G6.7±1.9	11.48±0.02	-35.4	-13.7	1.3	99.9	KW 70 (K0; Ramberg 1938)
2MASS J08404798+1939321	G6.8±1.7	10.70±0.01	-37.6	-14.5	0.9	99.9	KW334 (G2; Allen & Strom 1995)
2MASS J08404761+1854119	G6.8±1.5	11.13±0.01	-36.2	-14.9	1.2	99.8	KW336 (G5; Ramberg 1938)
2MASS J08431076+1931346	G6.8±1.6	11.45±0.01	-38.5	-17.5	1.9	96.3	KW498 (G8; Ramberg 1938)
2MASS J08372755+1937033	G7.3±1.8	11.25±0.02	-34.1	-12.6	1.9	99.8	KW 32 (G8; Ramberg 1938)
2MASS J08430241+1910031	G7.5±1.5	11.61±0.01	-37.7	-11.8	1.9	99.7	KW492 (K0; Ramberg 1938)
2MASS J08410961+1951186	G7.6±1.5	10.41±0.01	-36.7	-13.9	2.3	100.0	KW367
2MASS J08392155+2045293	G7.6±1.5	11.47±0.01	-35.1	-14.4	1.3	99.9	JS286 (K3; Adams et al. 2002)
2MASS J08323946+1957223	G7.9±1.6	11.81±0.01	-33.7	-15.8	2.4	94.3	JC 10
2MASS J08381427+1921552	G8.1±1.8	10.65±0.02	-35.0	-13.7	1.0	99.9	KW 90 (G0; Ramberg 1938)
2MASS J08400635+1918264	G8.2±1.5	10.71±0.01	-34.3	-14.7	0.8	99.8	KW257 (K3; Adams et al. 2002)

TABLE 3
Candidate Members of Praesepe

2MASS J08473577+2155364	G8.2±0.9	11.78±0.02	-35.8	-10.2	1.1	78.8	
2MASS J08405487+1956067	G8.5±1.6	11.64±0.01	-37.2	-14.9	1.6	100.0	KW344 (K1; Corbally & Garrison 1986)
2MASS J08410262+2027278	G8.5±1.5	11.82±0.01	-38.7	-12.1	3.0	99.8	
2MASS J08374739+1906247	G8.6±1.6	11.72±0.02	-35.6	-15.1	2.0	99.8	KW 52 (K2; Corbally & Garrison 1986)
2MASS J08351780+1938101	G8.7±1.5	11.56±0.01	-35.6	-12.3	1.9	99.7	JS 85
2MASS J08374640+1935575	G8.7±1.7	11.79±0.02	-37.8	-9.4	3.0	98.2	KW 48 (K1; Allen & Strom 1995)
2MASS J08421149+1916373	G9.3±1.3	11.78±0.01	-37.6	-10.0	1.9	98.8	KW448 (K1; Allen & Strom 1995)
2MASS J08490670+1941113	G9.4±0.2	11.69±0.01	-34.5	-12.8	2.0	97.0	A1903
2MASS J08392858+1928251	G9.6±1.4	11.19±0.01	-36.1	-10.8	2.6	99.8	KW184 (K3; Adams et al. 2002)
2MASS J08402440+1827137	G9.6±1.4	11.26±0.01	-32.3	-10.6	1.9	68.7	JS356
2MASS J08361639+1932313	G9.7±1.6	11.20±0.01	-35.3	-17.6	1.9	96.6	KW533
2MASS J08362269+1911293	G9.9±1.4	11.95±0.01	-38.4	-11.4	3.0	99.2	JS127 (K2; Allen & Strom 1995)
2MASS J08441706+1844119	G9.9±1.3	11.95±0.01	-34.7	-12.1	2.0	98.9	JS563
2MASS J08415199+2010013	K0.0±0.2	11.80±0.01	-40.6	-15.7	1.8	99.5	KW430 (K0; Ramberg 1938)
2MASS J08433880+2216093	K0.0±1.4	11.94±0.01	-39.6	-13.5	2.2	94.3	AD 3228
2MASS J08392185+1951402	K0.0±1.3	12.07±0.01	-36.4	-8.8	3.0	99.6	KW172 (K3; Adams et al. 2002)
2MASS J08424021+1907590	K0.1±0.1	11.90±0.01	-35.3	-10.9	1.3	99.3	KW471 (K0; Ramberg 1938)
2MASS J08384610+2034363	K0.2±1.3	12.03±0.01	-39.2	-11.8	3.0	99.6	KW544 (K3; Adams et al. 2002)
2MASS J08414776+1924439	K0.3±1.0	11.82±0.02	-30.3	-9.5	0.7	97.0	KW425
2MASS J08400416+1947039	K0.5±0.1	11.75±0.01	-33.0	-13.7	1.3	99.8	KW246 (K0; Allen & Strom 1995)
2MASS J08405669+1944052	K0.5±0.2	11.95±0.01	-36.1	-11.1	2.0	99.8	KW349 (K3; Adams et al. 2002)
2MASS J08384973+1815571	K0.6±1.2	12.15±0.01	-37.8	-9.3	3.0	96.8	JS252
2MASS J08370037+2232470	K0.7±1.4	12.22±0.02	-37.8	-13.8	3.0	94.3	AD 2251
2MASS J08223394+1903520	K0.8±1.3	10.84±0.01	-36.2	-12.5	1.2	60.8	AD 0487
2MASS J08374998+1953287	K0.8±1.4	11.10±0.02	-31.8	-19.2	1.1	97.8	KW 55 (G8; Ramberg 1938)
2MASS J08403347+1938009	K0.8±0.1	11.94±0.01	-38.9	-10.6	3.0	99.7	KW313 (K3; Adams et al. 2002)
2MASS J08424847+2034244	K0.8±1.1	12.03±0.01	-35.3	-13.1	2.0	99.6	JS503
2MASS J08364711+1834468	K0.8±1.1	12.35±0.01	-31.5	-6.6	3.0	79.8	JS147
2MASS J08283495+2147423	K0.8±0.1	12.50±0.01	-31.8	-18.0	1.9	56.1	AD 1135
2MASS J08294438+2040232	K0.9±0.1	11.58±0.01	-38.7	-12.9	0.6	94.7	AD 1268
2MASS J08431784+2030373	K1.0±1.2	11.56±0.01	-37.4	-14.2	1.3	99.6	JS529
2MASS J08393752+1810134	K1.0±0.1	12.01±0.01	-35.0	-15.2	1.9	98.0	JC169
2MASS J08414368+1957437	K1.1±0.1	12.04±0.01	-40.5	-13.1	1.9	99.6	KW417 (K1; Allen & Strom 1995)
2MASS J08301213+2313370	K1.1±0.1	12.05±0.01	-38.8	-13.9	2.3	66.7	AD 1336
2MASS J08365411+1845247	K1.1±1.1	12.25±0.01	-35.8	-7.3	3.0	95.5	JS155
2MASS J08380758+1959163	K1.2±0.1	11.69±0.01	-38.1	-13.5	1.9	99.8	KW 79 (K0; Ramberg 1938)
2MASS J08435467+1853369	K1.3±1.1	12.22±0.01	-34.7	-11.8	3.0	98.8	KW551
2MASS J08362830+2013429	K1.3±0.8	12.24±0.01	-37.8	-6.9	3.0	97.5	KW535 (K0; Ramberg 1938)
2MASS J08433239+1944378	K1.5±0.1	12.03±0.01	-40.1	-16.5	2.0	99.0	KW514 (K0; Ramberg 1938)
2MASS J08393836+1926272	K1.5±1.0	12.10±0.01	-33.0	-9.6	1.9	99.2	KW198 (K3; Allen & Strom 1995)
2MASS J08390228+1919343	K1.6±0.1	12.10±0.01	-36.6	-10.5	3.0	99.6	KW141 (K1; Allen & Strom 1995)
2MASS J08410725+1926489	K1.6±0.2	12.12±0.01	-43.7	-8.1	3.0	92.6	KW363 (K1; Allen & Strom 1995)
2MASS J08355696+2049346	K1.7±1.1	11.65±0.01	-33.4	-19.7	2.0	95.0	JS102
2MASS J08425708+1855275	K1.8±0.8	12.05±0.01	-26.5	-17.2	3.0	53.5	JS508
2MASS J08322347+2059449	K1.9±0.9	12.33±0.01	-38.1	-14.3	3.1	97.5	JS 8
2MASS J08501855+1925427	K1.9±0.1	12.38±0.01	-36.9	-11.6	2.7	95.0	AD 3767
2MASS J08502215+2250271	K1.9±0.5	12.75±0.02	-34.8	-9.4	3.1	60.6	AD 3770
2MASS J08375180+1924537	K2.0±0.9	12.46±0.02	-36.1	-8.2	3.0	98.9	KW 60
2MASS J08342121+2152438	K2.0±0.9	12.46±0.01	-28.3	-13.8	3.1	63.9	AD 1889
2MASS J08402863+2018449	K2.1±0.9	11.34±0.01	-37.4	-15.9	0.8	99.8	KW297 (K3; Adams et al. 2002)
2MASS J08361410+1937174	K2.1±0.1	12.23±0.01	-31.1	-10.2	2.0	97.7	KW532 (K2; Ramberg 1938)
2MASS J08331542+2042089	K2.1±0.5	12.31±0.01	-33.5	-19.4	3.1	91.8	JS 25
2MASS J08373821+1828570	K2.1±1.1	12.31±0.02	-34.0	-10.3	3.0	97.7	JS194
2MASS J08280099+1954172	K2.1±0.6	12.36±0.01	-38.3	-17.7	3.1	85.0	AD 1050
2MASS J08325223+1958359	K2.1±0.9	12.44±0.01	-37.0	-15.8	3.0	98.4	JS 15
2MASS J08405967+1822044	K2.2±0.6	11.56±0.01	-41.5	-12.5	5.2	96.4	JS402
2MASS J08444870+2017259	K2.3±0.9	12.39±0.01	-36.7	-13.0	3.0	99.4	JS576
2MASS J08395998+1934405	K2.3±0.5	12.45±0.01	-39.4	-4.2	3.0	90.3	KW237 (K3; Adams et al. 2002)
2MASS J08465012+2101129	K2.5±0.8	12.47±0.01	-36.1	-16.0	2.0	97.7	JS639
2MASS J08424372+1937234	K2.6±0.1	11.73±0.01	-36.4	-14.2	1.9	99.7	KW474 (K0; Ramberg 1938)
2MASS J08394707+1949395	K2.6±0.1	12.37±0.01	-40.8	-12.1	3.0	99.7	KW209 (K3; Adams et al. 2002)
2MASS J08393203+2039203	K2.7±0.1	11.73±0.01	-35.6	-13.1	1.9	99.7	JS297
2MASS J08402751+1939197	K2.9±0.7	12.67±0.01	-33.4	-12.2	3.0	99.7	KW299 (K3; Adams et al. 2002)
2MASS J08392940+1947118	K3.0±0.1	12.10±0.01	-38.9	-9.0	3.0	99.6	KW183 (K4; Adams et al. 2002)
2MASS J08340436+2034303	K3.0±0.1	12.44±0.01	-34.8	-13.4	3.1	98.9	JS 51
2MASS J08354516+1938262	K3.0±0.1	12.52±0.01	-36.1	-9.8	3.0	99.1	JS 96
2MASS J08395983+1934003	K3.1±0.1	11.50±0.01	-33.8	-12.2	2.0	99.7	KW236
2MASS J08413070+1852188	K3.1±0.1	12.17±0.01	-34.0	-10.7	3.0	98.9	KW401
2MASS J08402624+1913099	K3.1±0.1	12.48±0.01	-38.4	-7.0	3.0	97.7	JS359 (K3; Allen & Strom 1995)
2MASS J08404439+1839235	K3.1±0.1	12.53±0.01	-34.0	-10.4	3.0	98.5	JS383
2MASS J08400571+1901307	K3.2±0.1	12.05±0.01	-35.7	-12.2	3.0	99.5	KW256 (K1; Allen & Strom 1995)
2MASS J08520345+2121370	K3.2±0.1	12.19±0.01	-31.0	-9.8	1.9	57.5	AD 3937
2MASS J08452570+1842480	K3.2±0.1	12.47±0.01	-39.6	-9.1	2.8	94.8	JS598
2MASS J08412258+1856020	K3.2±0.1	12.56±0.01	-34.0	-9.9	3.0	98.8	KW390 (K3; Allen & Strom 1995)
2MASS J08461307+2043432	K3.3±0.1	12.54±0.01	-33.8	-19.1	3.0	94.2	AD 3492
2MASS J08325566+1843582	K3.3±0.5	12.63±0.01	-38.1	-12.1	3.0	97.1	JS 17
2MASS J08430822+1942475	K3.3±0.8	12.70±0.01	-33.7	-11.6	3.0	99.5	JS520 (K4; Allen & Strom 1995)

TABLE 3
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2MASS J08442031+1802595	K3.4±0.1	12.55±0.01	-39.9	-15.2	3.0	94.9	JS565
2MASS J08413902+1915568	K3.4±0.5	12.62±0.01	-42.9	-5.6	3.0	77.9	KW415 (K4; Allen & Strom 1995)
2MASS J08373576+2059275	K3.5±0.4	12.31±0.02	-33.8	-13.2	3.0	99.2	JS190
2MASS J08415884+2006272	K3.5±0.5	12.67±0.01	-40.3	-11.8	3.0	99.6	JS466 (K5.4; Kafka & Honeycutt 2006)
2MASS J08355988+1931320	K3.6±0.7	12.64±0.01	-38.5	-10.4	3.0	99.1	JS104
2MASS J08401345+1946436	K3.6±0.4	12.71±0.01	-31.5	-14.4	3.0	99.6	KW267 (K4; Adams et al. 2002)
2MASS J08463355+1814096	K3.7±0.5	12.69±0.01	-35.1	-9.1	2.7	91.8	JS633
2MASS J08401571+1954542	K3.8±0.2	12.13±0.01	-38.0	-13.2	3.0	99.9	KW272 (K4; Adams et al. 2002)
2MASS J08323341+2004483	K3.8±0.4	12.73±0.01	-39.0	-12.0	3.0	98.0	JS 12
2MASS J08434356+1904332	K3.8±0.5	12.89±0.01	-32.5	-16.6	3.0	98.0	JS547
2MASS J08342412+1947362	K3.9±0.1	12.77±0.01	-36.2	-12.7	3.0	99.2	JS 60
2MASS J08385833+1936497	K3.9±0.7	13.16±0.01	-29.0	-22.3	3.0	63.3	JS261 (K3; Adams et al. 2002)
2MASS J08411944+2006183	K3.9±0.3	13.25±0.01	-28.0	-21.2	3.0	69.6	AD 2932 (K4; Adams et al. 2002)
2MASS J08433463+1837199	K4.0±0.6	11.73±0.01	-37.9	-13.1	2.7	99.1	
2MASS J08324972+1842062	K4.0±0.7	12.17±0.01	-34.3	-10.9	3.0	97.3	JS 14
2MASS J08364182+2024399	K4.1±0.9	12.65±0.01	-35.9	-13.0	3.0	99.7	JS143
2MASS J08463304+1854242	K4.1±0.1	12.77±0.01	-34.1	-14.3	2.7	98.5	JS631
2MASS J08435672+1943323	K4.3±0.1	12.70±0.01	-36.7	-12.2	3.0	99.7	JS556 (K4; Allen & Strom 1995)
2MASS J08431522+2003560	K4.3±0.7	12.83±0.01	-36.1	-11.8	3.0	99.7	JS526 (K5; Allen & Strom 1995)
2MASS J08411922+2046392	K4.3±0.2	12.86±0.01	-38.0	-16.1	3.0	99.6	JS424
2MASS J08340356+1947429	K4.5±0.1	12.83±0.01	-45.1	-11.7	3.0	84.1	JS 52
2MASS J08330289+1840575	K4.5±0.1	12.85±0.01	-35.4	-14.7	3.0	98.2	JS 21
2MASS J08373624+1915542	K4.5±0.1	12.91±0.01	-35.3	-11.2	3.0	99.6	
2MASS J08422008+1909057	K4.6±0.1	12.88±0.01	-33.2	-10.1	3.0	99.1	JS482 (K5.6; Kafka & Honeycutt 2006)
2MASS J08401893+2011307	K4.7±0.7	12.21±0.01	-37.4	-14.0	3.0	99.9	JS350 (K4; Allen & Strom 1995)
2MASS J08400984+1805502	K4.7±0.4	12.85±0.01	-32.3	-14.2	3.0	97.4	JS343
2MASS J08393445+2057206	K4.7±0.1	12.93±0.01	-35.9	-15.6	3.0	99.6	JS299
2MASS J08413741+1931140	K4.8±0.2	12.92±0.01	-40.9	-12.0	3.0	99.5	JS445 (K5.8; Kafka & Honeycutt 2006)
2MASS J08411992+1938047	K4.9±0.1	12.95±0.01	-36.3	-12.0	3.0	99.8	A 575 (K5; Allen & Strom 1995)
2MASS J08430670+1947297	K4.9±0.5	12.95±0.01	-36.2	-14.8	3.0	99.7	JS516 (K5.8; Kafka & Honeycutt 2006)
2MASS J08421233+1912488	K5.0±0.1	13.02±0.01	-33.5	-9.6	3.0	99.1	JS473 (K5.6; Kafka & Honeycutt 2006)
2MASS J08311044+2135224	K5.0±0.1	13.40±0.01	-35.9	-18.0	3.1	92.6	AD 1459
2MASS J08344714+1801162	K5.1±0.1	13.02±0.01	-34.9	-9.5	3.0	95.2	JS 70
2MASS J08390411+1931216	K5.1±0.1	13.05±0.01	-37.0	-14.6	3.0	99.8	JS267 (K4; Adams et al. 2002)
2MASS J08414818+1927312	K5.2±0.1	12.92±0.01	-40.8	-9.8	3.0	99.1	JS455 (K4; Adams et al. 2002)
2MASS J08220218+1959592	K5.3±0.3	12.12±0.01	-39.5	-17.3	3.1	52.9	AD 0432
2MASS J08421285+1916040	K5.3±0.1	12.68±0.01	-33.0	-11.7	3.0	99.4	JS474 (K7.2; Kafka & Honeycutt 2006)
2MASS J08370345+1910412	K5.3±0.3	12.91±0.01	-41.1	-9.8	3.0	98.3	JC 85
2MASS J08382963+1951450	K5.3±0.2	13.13±0.01	-40.1	-13.2	3.0	99.8	KW559 (K4; Adams et al. 2002)
2MASS J08491476+2043009	K5.4±0.3	13.01±0.02	-43.4	-14.4	3.0	85.0	
2MASS J08451918+1900107	K5.4±0.1	13.11±0.01	-31.4	-14.3	3.0	97.5	JS591
2MASS J08282969+2015323	K5.4±0.3	13.40±0.01	-30.7	-7.4	3.1	52.9	AD 1128
2MASS J08364269+1853428	K5.5±0.2	13.04±0.01	-36.2	-12.8	3.0	99.4	JS145
2MASS J08380262+2112197	K5.5±0.2	13.34±0.02	-32.9	-10.6	3.0	98.7	
2MASS J08350805+1959253	K5.6±0.2	12.62±0.01	-37.2	-10.2	3.0	99.3	JS 79 (K5.8; Kafka & Honeycutt 2006)
2MASS J08401549+1927310	K5.6±0.3	12.90±0.01	-36.3	-8.5	3.0	99.5	JS349 (K7.2; Kafka & Honeycutt 2006)
2MASS J08485034+2225320	K5.6±0.1	12.92±0.01	-34.4	-12.1	3.1	91.4	HSHJ506
2MASS J08410979+1956072	K5.6±0.3	12.96±0.01	-42.4	-15.1	3.0	99.4	KW574 (K4; Adams et al. 2002)
2MASS J08372638+1929128	K5.6±0.1	12.99±0.01	-42.7	-14.4	3.0	98.6	JS179 (K5.8; Kafka & Honeycutt 2006)
2MASS J08365163+1904350	K5.6±0.2	13.04±0.01	-34.6	-7.9	3.0	98.0	JS152 (K5; Allen & Strom 1995)
2MASS J08423700+2008318	K5.6±0.1	13.09±0.01	-40.9	-15.8	3.0	99.4	JS493 (K5; Allen & Strom 1995)
2MASS J08365374+1829451	K5.6±0.1	13.13±0.01	-34.2	-9.0	3.0	97.4	JS154
2MASS J08550224+2023540	K5.6±0.1	13.14±0.01	-32.7	-14.6	3.0	80.5	AD 4269
2MASS J08341024+1948177	K5.6±0.1	13.18±0.01	-38.2	-12.8	3.0	99.3	JS 56
2MASS J08373105+1906142	K5.7±0.1	12.96±0.01	-38.6	-12.1	3.0	99.5	JS186 (K5.9; Kafka & Honeycutt 2006)
2MASS J08331762+1925505	K5.7±0.2	13.05±0.01	-38.6	-9.1	3.0	97.5	JS 31
2MASS J08405865+1840303	K5.8±0.1	12.71±0.01	-34.5	-15.0	3.0	99.3	JS401 (K7.2; Kafka & Honeycutt 2006)
2MASS J08273065+2013059	K5.8±0.1	13.11±0.01	-42.2	-18.3	3.1	61.9	AD 0982
2MASS J08421664+2005325	K5.8±0.2	13.20±0.01	-38.2	-18.2	3.0	99.5	JS478 (K7.4; Kafka & Honeycutt 2006)
2MASS J08285400+2034416	K5.9±0.3	12.01±0.01	-41.2	-16.6	3.1	87.5	AD 1180
2MASS J08383723+1901161	K5.9±0.1	12.81±0.01	-37.7	-6.8	3.0	97.3	JS242 (K5; Allen & Strom 1995)
2MASS J08362786+2107161	K5.9±0.1	13.16±0.01	-38.0	-21.8	3.0	87.7	JS131
2MASS J08385354+1934170	K5.9±0.2	13.17±0.01	-40.9	-21.3	3.0	94.3	JC 137
2MASS J08330745+2007482	K7.0±0.1	13.12±0.01	-38.5	-8.4	3.0	97.0	JS 23
2MASS J08403952+1849057	K7.0±0.1	13.21±0.01	-34.4	-7.1	3.0	96.8	
2MASS J08371261+2032414	K7.0±0.3	13.56±0.02	-40.4	-9.2	3.0	98.8	JS169
2MASS J08382166+1836400	K7.1±0.3	12.41±0.02	-33.5	-8.6	3.0	97.3	JC123
2MASS J08461381+2051247	K7.1±0.1	13.10±0.01	-38.0	-19.0	3.0	96.4	JS623
2MASS J08441324+1849114	K7.1±0.3	13.18±0.01	-39.9	-13.7	2.8	98.8	JS561
2MASS J08413599+1906255	K7.1±0.2	13.20±0.01	-31.1	-9.6	3.0	97.7	JC259 (K5.9; Kafka & Honeycutt 2006)
2MASS J08391017+2024301	K7.1±0.1	13.24±0.01	-36.9	-11.2	3.0	99.8	JS273 (K5; Allen & Strom 1995)
2MASS J08275060+2014363	K7.1±0.1	13.31±0.01	-37.9	-18.5	3.1	86.7	AD 1025
2MASS J08313281+2101280	K7.1±0.3	13.34±0.01	-38.5	-19.0	3.1	92.0	AD 1512
2MASS J08385722+2010536	K7.2±0.2	12.96±0.01	-43.3	-14.0	3.0	99.0	KW560 (K7; Kafka & Honeycutt 2006)
2MASS J08433105+1832547	K7.2±0.2	13.00±0.01	-34.1	-15.1	3.0	98.8	JS536 (K7; Kafka & Honeycutt 2006)
2MASS J08442652+1947359	K7.2±0.1	13.15±0.01	-43.0	-15.9	3.0	97.0	JS566
2MASS J08363642+1911068	K7.2±0.1	13.48±0.01	-38.0	-10.9	3.0	99.4	JS140 (K7; Allen & Strom 1995)

TABLE 3
Candidate Members of Praesepe

2MASS J08382386+2043409	K7.2±0.4	13.54±0.02	-31.7	-17.2	3.0	98.7	JS227
2MASS J08255438+2258522	K7.2±0.1	13.54±0.01	-35.1	-16.8	3.1	58.2	AD 0795
2MASS J08381365+1715158	K7.2±0.2	13.55±0.01	-40.1	-9.2	3.0	85.7	AD 2380
2MASS J08424208+1917323	K7.3±0.3	13.34±0.01	-36.6	-5.4	3.0	94.4	JS497 (K7.9; Kafka & Honeycutt 2006)
2MASS J08382819+2132460	K7.4±0.2	12.49±0.01	-39.9	-17.9	3.0	97.0	JS231
2MASS J08452598+2025385	K7.4±0.2	13.17±0.01	-41.0	-15.3	3.0	98.5	JS594
2MASS J08370374+1840025	K7.4±0.3	13.18±0.01	-31.6	-11.8	3.0	97.8	JS165 (M3.8; Kafka & Honeycutt 2006)
2MASS J08354678+1952153	K7.4±0.1	13.39±0.01	-42.3	-12.0	3.0	98.4	JS 97 (K7.9; Kafka & Honeycutt 2006)
2MASS J08405531+1834592	K7.4±0.1	13.41±0.01	-37.6	-13.8	3.0	99.4	JS398
2MASS J08305102+1921088	K7.4±0.1	13.50±0.01	-37.7	-14.7	3.0	97.8	HSHJ 7
2MASS J08372639+1907557	K7.4±0.2	13.51±0.01	-37.6	-12.3	3.0	99.6	JS180 (K7.7; Kafka & Honeycutt 2006)
2MASS J08360865+1844509	K7.4±0.1	13.58±0.01	-38.6	-11.2	3.0	98.9	JS112
2MASS J08263520+2010567	K7.5±0.1	12.88±0.01	-31.6	-8.7	3.1	63.7	AD 0868
2MASS J08424596+2116163	K7.5±0.4	13.24±0.01	-42.7	-11.9	3.0	96.3	AD 3128
2MASS J08321067+2120296	K7.5±0.2	13.27±0.01	-34.8	-12.6	3.1	97.7	AD 1594
2MASS J08393643+1915378	K7.5±0.1	13.33±0.01	-33.3	-24.6	3.0	52.0	JS302 (K5; Adams et al. 2002)
2MASS J08390321+2002376	K7.5±0.3	13.37±0.01	-40.7	-14.3	3.0	99.7	KW561 (K5; Adams et al. 2002)
2MASS J08444075+2011371	K7.5±0.2	13.38±0.01	-35.3	-16.4	3.0	99.4	JS572
2MASS J08360444+1955130	K7.5±0.1	13.48±0.01	-41.8	-15.6	3.0	98.7	JS107 (K7.5; Kafka & Honeycutt 2006)
2MASS J08384146+1925181	K7.5±0.1	13.49±0.01	-38.8	-11.0	3.0	99.7	JS244 (K7.5; Kafka & Honeycutt 2006)
2MASS J08544811+2048201	K7.5±0.1	13.56±0.01	-40.1	-16.0	3.0	77.7	AD 4242
2MASS J08414934+1911471	K7.6±0.1	13.19±0.01	-33.9	-10.8	3.0	99.5	JS456 (K7.7; Kafka & Honeycutt 2006)
2MASS J08411541+2002160	K7.6±0.4	13.35±0.01	-37.3	-11.9	3.0	99.9	KW575 (K5; Adams et al. 2002)
2MASS J08361598+2033112	K7.6±0.1	13.57±0.01	-40.2	-17.9	3.0	98.5	JS118
2MASS J08415228+1803067	K7.6±0.1	13.68±0.01	-35.8	-12.4	3.0	98.6	JS462
2MASS J08403789+2020178	K7.6±0.1	13.71±0.01	-37.9	-15.2	3.0	99.8	JS373 (M0; Adams et al. 2002)
2MASS J08393645+1929079	K7.6±0.1	13.76±0.01	-34.3	-11.1	3.0	99.7	JS301 (M0.1; Kafka & Honeycutt 2006)
2MASS J08404426+2028187	K7.7±0.1	12.77±0.01	-37.1	-12.3	3.0	99.8	JS379 (K5; Allen & Strom 1995)
2MASS J08371635+1929103	K7.7±0.1	12.82±0.01	-34.7	-15.4	3.0	99.6	JS172 (K7.5; Kafka & Honeycutt 2006)
2MASS J08365783+2133556	K7.7±1.3	13.48±0.01	-35.3	-18.2	3.0	97.4	JS156
2MASS J08334697+2126276	K7.7±0.1	13.50±0.01	-38.8	-11.8	3.1	98.0	JS 45
2MASS J08534667+1918142	K7.7±0.1	13.50±0.01	-35.4	-9.7	2.7	84.9	AD 4129
2MASS J08365989+2024234	K7.7±0.1	13.68±0.01	-40.2	-9.5	3.0	99.0	AD 2250
2MASS J08410532+2028245	K7.7±0.1	13.77±0.01	-41.8	-12.2	3.0	99.3	JS405 (M0; Allen & Strom 1995)
2MASS J08270678+1719213	K7.7±0.1	13.81±0.01	-33.8	-8.8	3.0	51.3	AD 0934
2MASS J08470424+2216256	K7.8±0.1	13.66±0.01	-41.4	-14.4	3.1	88.6	
2MASS J08432501+2033552	K7.8±0.1	13.78±0.01	-39.0	-11.7	3.0	99.5	JS533
2MASS J08393715+1948580	K7.8±0.1	13.82±0.01	-35.3	-11.9	3.0	99.9	KW569 (M0.4; Kafka & Honeycutt 2006)
2MASS J08402823+1856090	K7.8±0.1	14.12±0.01	-32.4	-12.4	3.0	99.2	JS364 (M1.3; Kafka & Honeycutt 2006)
2MASS J08435181+1954490	K7.9±0.6	13.36±0.01	-37.8	-18.1	3.0	99.2	JS554 (K7; Allen & Strom 1995)
2MASS J08365680+1905280	K7.9±0.1	13.36±0.01	-36.8	-12.7	3.0	99.6	JS160
2MASS J08430528+1927546	K7.9±0.1	13.92±0.01	-33.7	-15.1	3.0	99.5	JS513 (M0.4; Kafka & Honeycutt 2006)
2MASS J08353571+1859445	K7.9±0.1	14.02±0.01	-36.6	-10.8	3.0	99.1	JS 92
2MASS J08305760+2039448	K7.9±0.1	14.13±0.01	-34.4	-15.7	3.1	97.3	AD 1423
2MASS J08363256+1623024	M0.0±0.1	13.92±0.01	-33.7	-8.3	3.0	55.0	AD 2182
2MASS J08414388+1918082	M0.0±0.1	14.05±0.01	-35.9	-8.1	3.0	99.0	JS452 (M0.8; Kafka & Honeycutt 2006)
2MASS J08361143+1952403	M0.0±0.1	14.10±0.01	-41.0	-11.6	3.0	99.2	JS113 (M0.5; Kafka & Honeycutt 2006)
2MASS J08312987+2024374	M0.1±0.1	13.22±0.01	-37.3	-16.7	3.1	98.3	AD 1508
2MASS J08522025+1822174	M0.1±0.2	14.01±0.01	-35.4	-12.9	9.6	94.0	AD 3962
2MASS J08353387+1855474	M0.2±0.2	13.86±0.01	-36.2	-11.8	3.0	99.5	JS 91 (M1.8; Kafka & Honeycutt 2006)
2MASS J08393704+1747198	M0.2±0.1	14.05±0.01	-33.2	-9.0	3.0	92.7	AD 2595
2MASS J08361553+2041098	M0.2±0.1	14.10±0.01	-37.5	-17.8	3.0	99.2	JS117
2MASS J08335924+1921454	M0.3±0.2	13.45±0.01	-39.5	-10.9	3.0	98.8	JS 48
2MASS J08434306+1754298	M0.3±0.1	13.78±0.01	-33.4	-12.6	3.0	97.7	JS548
2MASS J08305892+1841410	M0.3±0.1	14.04±0.01	-35.2	-14.5	3.0	98.0	AD 1427
2MASS J08394103+1959288	M0.4±0.2	13.79±0.01	-33.7	-11.3	3.0	99.9	KW570 (M0; Adams et al. 2002)
2MASS J08413848+1738240	M0.4±0.1	13.88±0.01	-37.1	-10.4	3.0	97.3	HSHJ385
2MASS J08360631+2040599	M0.4±0.1	13.91±0.01	-38.6	-14.7	3.0	99.6	JS109
2MASS J08383435+1811171	M0.4±0.2	14.09±0.01	-34.6	-9.7	3.0	98.0	JS240
2MASS J08492676+1831195	M0.5±0.1	13.86±0.01	-36.2	-13.3	2.7	97.8	
2MASS J08394656+1913041	M0.5±0.1	13.96±0.01	-38.0	-11.0	3.0	99.7	JS317 (M0.7; Kafka & Honeycutt 2006)
2MASS J08335077+1946586	M0.5±0.2	14.20±0.01	-35.0	-15.0	3.0	99.5	JS 46
2MASS J08394174+2001415	M0.5±0.1	14.23±0.01	-34.5	-12.2	3.0	99.9	KW571 (M1; Kafka & Honeycutt 2006)
2MASS J08411319+1932349	M0.6±1.0	12.82±0.01	-37.6	-9.7	3.0	99.7	JS418 (M0; Adams et al. 2002)
2MASS J08443613+1835570	M0.6±1.1	13.12±0.01	-35.6	-9.2	3.0	98.0	JS571 (M0.4; Kafka & Honeycutt 2006)
2MASS J08521452+1903391	M0.7±0.1	13.56±0.01	-37.9	-8.6	2.7	84.5	AD 3954
2MASS J08343646+1823530	M0.7±1.6	13.91±0.01	-32.9	-12.0	3.0	97.7	JS 65
2MASS J08402217+1807248	M0.7±0.2	14.00±0.01	-35.7	-11.2	3.0	99.0	JS355
2MASS J08435085+2021567	M0.7±0.1	14.02±0.01	-37.5	-9.8	3.0	99.5	JS552
2MASS J08380711+1718381	M0.7±0.1	14.29±0.01	-37.9	-11.1	3.0	96.3	AD 2371
2MASS J08434474+2112343	M0.8±0.1	13.86±0.01	-39.9	-17.7	3.0	97.5	JS545
2MASS J08374912+1715180	M0.8±0.2	13.89±0.01	-36.4	-13.8	3.0	97.4	AD 2354
2MASS J08372845+2036286	M0.8±0.1	13.95±0.01	-41.7	-14.3	3.0	99.1	JS181
2MASS J08381578+2123083	M0.8±0.1	14.11±0.01	-37.5	-19.0	3.0	97.4	
2MASS J08481476+2233323	M0.8±0.1	14.16±0.01	-40.5	-16.2	3.1	83.9	
2MASS J08484913+2013271	M0.8±0.1	14.34±0.01	-39.1	-12.9	2.7	98.5	
2MASS J08365626+1857480	M0.9±0.1	13.42±0.01	-36.8	-11.9	3.0	99.6	JS159

TABLE 3
Candidate Members of Praesepe

2MASS J08461010+1931438	M0.9±1.6	13.87±0.01	-36.7	-18.3	2.7	98.2	JS620
2MASS J08361590+2007129	M0.9±0.1	14.21±0.01	-43.8	-13.5	3.0	95.5	JS119 (M0.9; Kafka & Honeycutt 2006)
2MASS J08385527+1917017	M0.9±0.1	14.26±0.01	-40.1	-14.5	3.0	99.6	JS256 (M1.8; Kafka & Honeycutt 2006)
2MASS J08362342+1824210	M0.9±0.1	14.42±0.01	-34.0	-11.8	3.0	98.9	JS129
2MASS J08364957+1933230	M1.0±1.4	12.78±0.02	-39.8	-15.7	3.0	99.5	JS150 (M0.2; Kafka & Honeycutt 2006)
2MASS J08412417+1814026	M1.0±0.1	13.94±0.01	-35.1	-12.9	3.0	99.3	JS432
2MASS J08423486+2059408	M1.0±0.1	14.25±0.01	-41.9	-17.5	3.0	95.9	JS489
2MASS J08412044+1937224	M1.0±0.1	14.28±0.01	-37.8	-13.0	3.0	99.9	JS427 (M1.4; Kafka & Honeycutt 2006)
2MASS J08423205+1835281	M1.0±0.1	14.32±0.01	-31.0	-10.3	3.0	94.9	JS488
2MASS J08484997+2026359	M1.0±0.1	14.37±0.01	-34.2	-16.6	3.0	97.5	
2MASS J08345513+2006198	M1.0±0.1	14.39±0.01	-34.3	-10.2	3.0	99.3	JS 75
2MASS J08450264+2030438	M1.1±0.1	13.63±0.01	-29.4	-12.4	3.0	93.0	JS586
2MASS J08452599+2025225	M1.1±1.8	13.71±0.01	-33.8	-13.6	3.0	99.5	JS595
2MASS J08390185+1751208	M1.1±0.1	14.29±0.01	-33.1	-13.2	3.0	97.9	AD 2496
2MASS J08292796+2108383	M1.1±0.1	14.30±0.01	-33.5	-16.1	3.1	94.2	AD 1240
2MASS J08472162+2039220	M1.1±0.1	14.31±0.01	-37.6	-18.6	3.0	96.5	JS647
2MASS J08303865+1728194	M1.1±0.1	14.35±0.01	-39.6	-14.6	3.0	89.7	HSHJ 6
2MASS J08434473+1903588	M1.1±0.1	14.40±0.01	-35.1	-13.1	3.0	99.6	JS550 (M1.6; Kafka & Honeycutt 2006)
2MASS J08240933+2001249	M1.1±0.2	14.71±0.01	-38.6	-9.8	3.0	77.2	AD 0632
2MASS J08391887+2027521	M1.1±0.1	14.75±0.01	-26.8	-10.5	3.0	63.1	JS285 (M1.5; Adams et al. 2002)
2MASS J08401002+2025083	M1.2±0.1	13.83±0.01	-36.6	-12.9	3.0	99.9	JS340 (M1; Allen & Strom 1995)
2MASS J08391453+2001191	M1.2±0.1	14.25±0.01	-35.7	-12.4	3.0	99.9	KW564 (M1; Adams et al. 2002)
2MASS J08404692+2028291	M1.2±0.2	14.30±0.01	-35.9	-17.0	3.0	99.8	JS384 (M2; Allen & Strom 1995)
2MASS J08275096+1948207	M1.2±0.2	14.32±0.01	-38.7	-16.2	3.0	94.2	AD 1026
2MASS J08401378+1944559	M1.2±0.3	14.38±0.01	-36.9	-11.1	3.0	99.9	KW573 (M2; Adams et al. 2002)
2MASS J08415935+1944452	M1.2±0.1	14.40±0.01	-37.6	-10.9	3.0	99.8	JS468 (M2; Adams et al. 2002)
2MASS J08362515+2108565	M1.2±0.1	14.52±0.01	-37.1	-16.2	3.0	99.4	JS128
2MASS J08383283+1946256	M1.2±0.1	14.54±0.01	-36.6	-11.7	3.0	99.9	JS237 (M2.1; Kafka & Honeycutt 2006)
2MASS J08373505+2013265	M1.3±0.1	13.87±0.01	-41.2	-12.3	3.0	99.5	JS191
2MASS J08473468+1908179	M1.3±0.1	13.97±0.01	-35.0	-12.7	2.7	99.0	JS649
2MASS J08445643+1822171	M1.3±0.1	14.14±0.01	-34.9	-7.5	3.0	91.5	JS582
2MASS J08405382+1922440	M1.3±0.2	14.16±0.01	-38.0	-13.0	3.0	99.8	JS394 (M1.3; Kafka & Honeycutt 2006)
2MASS J08375456+2008123	M1.3±0.1	14.34±0.01	-36.3	-14.4	3.0	99.9	JS206 (M1.8; Kafka & Honeycutt 2006)
2MASS J08411106+2022384	M1.3±0.1	14.35±0.01	-36.1	-20.6	3.0	97.8	JS411 (M2; Adams et al. 2002)
2MASS J08433689+2032140	M1.3±0.2	14.49±0.01	-39.8	-16.7	3.0	99.2	JS542
2MASS J08380817+2026461	M1.3±0.1	14.57±0.01	-36.5	-10.1	3.0	99.7	
2MASS J08391805+2044214	M1.3±0.1	14.57±0.01	-35.4	-9.6	3.0	99.6	JS284 (M2; Adams et al. 2002)
2MASS J08360898+1913481	M1.3±0.1	14.59±0.01	-35.3	-13.1	3.0	99.7	JS110 (M2.3; Kafka & Honeycutt 2006)
2MASS J08400070+1918347	M1.4±1.8	13.44±0.01	-39.0	-10.2	3.0	99.6	JS329 (K7; Adams et al. 2002)
2MASS J08362712+1951546	M1.4±0.1	13.78±0.01	-35.0	-13.5	3.0	99.8	JS132 (M2; Kafka & Honeycutt 2006)
2MASS J08332700+1920288	M1.4±0.1	13.88±0.01	-38.6	-10.0	3.0	98.5	JS 35
2MASS J08374982+1930508	M1.4±0.2	14.31±0.01	-34.7	-9.2	3.0	99.5	JS200 (M1.3; Kafka & Honeycutt 2006)
2MASS J08415005+1939347	M1.4±0.1	14.39±0.01	-33.5	-11.0	3.0	99.7	JS457 (M2; Adams et al. 2002)
2MASS J08390688+2020542	M1.4±0.3	14.46±0.01	-36.3	-15.9	3.0	99.9	JS270 (M2; Allen & Strom 1995)
2MASS J08475472+2003428	M1.4±0.1	14.50±0.01	-41.7	-8.1	2.7	81.7	JS653
2MASS J08373222+1853023	M1.4±0.1	14.58±0.01	-34.6	-14.1	3.0	99.6	JS188 (M2.3; Kafka & Honeycutt 2006)
2MASS J08421364+1950086	M1.4±0.1	14.60±0.01	-41.0	-15.2	3.0	99.5	JS475 (M2.5; Adams et al. 2002)
2MASS J08331440+1904364	M1.4±0.1	14.62±0.01	-33.3	-15.1	3.0	98.5	JS 27
2MASS J08391679+1947426	M1.4±0.1	14.63±0.01	-37.4	-9.9	3.0	99.8	JS283 (M1; Adams et al. 2002)
2MASS J08483271+1656236	M1.5±0.1	14.03±0.01	-36.5	-11.0	2.7	88.2	AD 3663
2MASS J08420517+2057565	M1.5±0.1	14.06±0.01	-37.2	-16.0	3.0	99.6	JS470
2MASS J08372419+1925012	M1.5±0.1	14.06±0.01	-35.7	-12.8	3.0	99.8	JS178
2MASS J08424968+1851351	M1.5±0.1	14.28±0.01	-30.2	-16.2	3.0	94.4	JS505 (M1.5; Adams et al. 2002)
2MASS J08344967+1847040	M1.5±0.1	14.50±0.01	-35.2	-10.0	3.0	98.6	JS 72
2MASS J08380730+2026556	M1.5±0.1	14.59±0.01	-41.4	-13.2	3.0	99.5	
2MASS J08432392+1840451	M1.5±0.1	14.68±0.01	-29.2	-13.1	3.0	89.1	JS534
2MASS J08412086+2020476	M1.5±0.1	14.82±0.01	-34.7	-17.1	3.0	99.7	JS426 (M2.5; Adams et al. 2002)
2MASS J08365659+2019101	M1.6±0.1	13.78±0.01	-36.5	-8.8	3.0	99.4	JS157
2MASS J08395128+2034499	M1.6±0.1	14.15±0.01	-40.6	-12.9	3.0	99.7	JS318 (M2; Allen & Strom 1995)
2MASS J08382772+1945556	M1.6±0.1	14.31±0.01	-36.4	-10.6	3.0	99.8	JS232 (M2; Adams et al. 2002)
2MASS J08252503+2013177	M1.6±0.1	14.50±0.01	-35.1	-17.5	3.0	83.8	AD 0738
2MASS J08445387+2137065	M1.6±0.1	14.57±0.01	-39.5	-17.3	3.0	96.6	AD 3349
2MASS J08370352+1932096	M1.6±0.1	14.62±0.01	-37.6	-11.6	3.0	99.8	JS164 (M2.6; Kafka & Honeycutt 2006)
2MASS J08452605+1941544	M1.6±0.1	14.73±0.01	-34.5	-15.0	2.8	99.5	JS597 (M2.5; Adams et al. 2002)
2MASS J08471812+2029091	M1.6±0.1	14.76±0.01	-35.2	-22.0	3.0	62.7	JS645
2MASS J08325309+1830293	M1.6±0.1	14.83±0.01	-36.1	-13.4	3.0	98.8	JS 16 (M2; Williams et al. 1994)
2MASS J08411052+1816070	M1.7±0.1	14.53±0.01	-35.7	-12.6	3.0	99.3	JS415
2MASS J08453624+2115211	M1.7±0.1	14.61±0.01	-40.9	-17.1	3.0	95.4	JS604
2MASS J08455280+1919006	M1.7±0.1	14.67±0.01	-40.7	-15.3	2.7	98.4	AD 3461 (M3; Adams et al. 2002)
2MASS J08391526+1917114	M1.7±0.1	14.74±0.01	-34.9	-11.8	3.0	99.8	JS281 (M2.5; Kafka & Honeycutt 2006)
2MASS J08381391+2109262	M1.7±0.1	14.77±0.01	-36.8	-17.0	3.0	99.4	JS216
2MASS J08361453+1555115	M1.7±0.1	14.97±0.01	-38.0	-18.2	3.0	54.8	AD 2136
2MASS J08391580+2004141	M1.8±1.2	13.43±0.01	-35.4	-8.6	3.0	99.7	KW566 (M0; Allen & Strom 1995)
2MASS J08295706+1834000	M1.8±0.1	13.85±0.01	-38.5	-14.0	3.0	96.8	AD 1296
2MASS J08411392+1858090	M1.8±0.1	14.33±0.01	-38.3	-12.2	3.0	99.7	JS419 (M3; Kafka & Honeycutt 2006)
2MASS J08364895+1918593	M1.8±0.1	14.52±0.01	-37.6	-14.1	3.0	99.8	JS148 (M2.9; Kafka & Honeycutt 2006)
2MASS J08363338+1954544	M1.8±0.1	14.56±0.01	-37.3	-13.5	3.0	99.8	JS136 (M2.2; Kafka & Honeycutt 2006)

TABLE 3
Candidate Members of Praesepe

2MASS J08454589+2029410	M1.8±0.1	14.64±0.01	-36.7	-16.6	3.0	99.3	JS609
2MASS J08363491+2016307	M1.8±0.1	14.72±0.01	-39.5	-13.0	3.0	99.7	JS139
2MASS J08351695+1954534	M1.8±0.1	14.85±0.01	-32.2	-13.6	3.0	99.2	JS 84 (M3; Adams et al. 2002)
2MASS J08352169+1829342	M1.8±0.1	14.86±0.01	-35.6	-15.5	3.0	99.1	JS 87
2MASS J08482253+1836448	M1.8±0.1	14.88±0.01	-34.5	-7.1	2.7	80.2	
2MASS J08373242+1931180	M1.9±0.2	14.32±0.01	-39.7	-18.0	3.0	99.0	JS187 (M2.1; Kafka & Honeycutt 2006)
2MASS J08483450+1955575	M1.9±0.1	14.48±0.01	-38.9	-11.5	2.7	98.4	
2MASS J08360048+1758333	M1.9±0.1	14.56±0.01	-32.4	-11.6	3.0	96.0	JS105
2MASS J08364107+1818262	M1.9±0.1	14.62±0.01	-36.5	-15.7	3.0	99.1	JS144
2MASS J08362182+2012197	M1.9±0.1	14.75±0.01	-41.7	-13.7	3.0	99.1	JS126 (M3; Adams et al. 2002)
2MASS J08415192+2020479	M1.9±0.1	14.76±0.01	-39.3	-17.4	3.0	99.5	JS459
2MASS J08455142+1925272	M1.9±0.1	14.76±0.01	-37.2	-17.4	2.7	98.9	JS613 (M3; Adams et al. 2002)
2MASS J08402657+2015132	M1.9±0.1	14.79±0.01	-35.7	-14.0	3.0	99.9	AD 2759 (M2.5; Adams et al. 2002)
2MASS J08411543+1905104	M1.9±0.1	14.82±0.01	-32.3	-10.9	3.0	99.1	JS726 (M3; Adams et al. 2002)
2MASS J08355919+1818296	M1.9±0.1	14.84±0.01	-31.2	-10.7	3.0	93.3	HSHJ 94
2MASS J08355289+1818510	M1.9±0.2	14.85±0.01	-36.4	-11.9	3.0	99.1	JS686
2MASS J08431292+1831509	M1.9±0.1	14.85±0.01	-35.1	-11.1	3.0	99.2	JS525 (M2.7; Kafka & Honeycutt 2006)
2MASS J08371189+2040473	M1.9±0.1	14.90±0.01	-32.7	-17.3	3.0	98.9	JS166
2MASS J08382489+1658360	M1.9±0.1	14.92±0.01	-34.4	-8.6	3.0	82.3	AD 2396
2MASS J08405187+1956302	M1.9±0.1	14.98±0.01	-35.8	-14.5	3.0	99.9	JS390 (M3; Adams et al. 2002)
2MASS J08441755+2245041	M1.9±0.1	15.04±0.01	-30.3	-11.3	3.1	68.8	AD 3297
2MASS J08392244+2004548	M1.9±0.1	15.07±0.01	-34.8	-10.7	3.0	99.9	AD 2552 (M3; Adams et al. 2002)
2MASS J08333802+1857175	M1.9±0.1	15.07±0.01	-37.6	-12.4	3.0	99.2	JS 41
2MASS J08401909+1821429	M1.9±0.1	15.11±0.01	-32.5	-11.4	3.0	98.2	JS351
2MASS J08314045+1947541	M2.0±1.4	13.62±0.01	-36.3	-8.3	3.0	95.2	HSHJ 15
2MASS J08325690+2520585	M2.0±0.1	13.69±0.01	-34.8	-15.6	3.1	53.6	AD 1690
2MASS J08390986+1946589	M2.0±0.1	13.92±0.01	-37.0	-12.2	3.0	99.8	KW563 (M2.5; Adams et al. 2002)
2MASS J08401982+1855382	M2.0±0.1	14.12±0.01	-36.5	-7.2	3.0	96.4	JS352 (M2.9; Kafka & Honeycutt 2006)
2MASS J08411130+1931467	M2.0±0.1	14.48±0.01	-37.6	-9.0	3.0	99.2	JS414 (M3; Adams et al. 2002)
2MASS J08372705+1858360	M2.0±0.1	15.04±0.01	-36.7	-15.1	3.0	99.4	JS183 (M3.5; Adams et al. 2002)
2MASS J08480495+1928137	M2.0±0.1	15.11±0.01	-38.1	-17.4	2.7	97.0	JS656
2MASS J08284992+1959203	M2.1±0.1	14.07±0.01	-39.4	-16.1	3.0	94.9	AD 1166
2MASS J08373371+1918396	M2.1±0.2	14.59±0.01	-39.9	-15.4	3.0	99.2	JC105
2MASS J08370267+1919424	M2.1±0.1	14.78±0.01	-34.9	-10.6	3.0	99.3	JS163
2MASS J08385072+1924541	M2.1±0.1	14.90±0.01	-38.8	-13.3	3.0	99.6	JS251 (M3.5; Adams et al. 2002)
2MASS J08453893+2229557	M2.1±0.1	15.03±0.01	-29.8	-17.1	3.1	59.7	AD 3433
2MASS J08350789+2020232	M2.1±0.1	15.33±0.01	-35.7	-13.3	3.0	99.5	AD 1978 (M3.5; Adams et al. 2002)
2MASS J08220182+2019363	M2.1±0.1	15.46±0.01	-31.1	-13.6	3.0	60.5	AD 0431
2MASS J08452630+1947040	M2.2±0.1	14.36±0.01	-33.6	-13.9	2.8	99.1	AD 3411
2MASS J08374494+1940290	M2.2±0.1	14.57±0.01	-33.7	-11.4	3.0	99.5	JS195
2MASS J08390394+2034023	M2.2±0.1	14.85±0.01	-37.7	-9.6	3.0	99.4	JS266 (M3.5; Adams et al. 2002)
2MASS J08332628+2331122	M2.2±0.1	14.96±0.01	-37.6	-11.3	3.1	89.3	AD 1757
2MASS J08365598+1935570	M2.2±0.1	15.01±0.01	-36.4	-11.0	3.0	99.5	JS158 (M3.5; Adams et al. 2002)
2MASS J08380371+1941512	M2.2±0.1	15.10±0.01	-37.1	-9.0	3.0	99.3	HSHJ192 (M3.1; Kafka & Honeycutt 2006)
2MASS J08340246+1919219	M2.3±0.1	14.34±0.01	-37.3	-12.0	3.0	99.1	JS 50
2MASS J08474511+1821239	M2.3±0.1	14.36±0.01	-37.3	-15.0	2.7	97.7	JS651
2MASS J08373155+2251596	M2.3±0.1	14.58±0.01	-34.8	-15.8	3.1	95.2	
2MASS J08361902+1855084	M2.3±0.1	14.95±0.01	-38.5	-15.3	3.0	99.1	JS124
2MASS J08444049+2145537	M2.3±0.1	14.96±0.01	-37.9	-20.3	3.1	85.0	AD 3337
2MASS J08333394+2004256	M2.3±0.1	15.14±0.01	-39.5	-12.4	3.0	98.8	HSHJ 43
2MASS J08454049+2010255	M2.3±0.1	15.20±0.01	-36.4	-18.4	2.8	97.9	JS607
2MASS J08320795+1844267	M2.3±0.1	15.21±0.01	-27.9	-13.2	3.0	53.3	AD 1588
2MASS J08431843+1931078	M2.3±0.1	15.28±0.01	-38.7	-6.8	3.0	94.8	JS530 (M3.5; Adams et al. 2002)
2MASS J08343073+1906003	M2.3±0.1	15.33±0.01	-39.2	-7.2	3.0	91.2	JS675 (M3.6; Kafka & Honeycutt 2006)
2MASS J08325808+2212203	M2.3±0.1	15.47±0.01	-40.2	-16.3	3.1	92.1	AD 1693
2MASS J08353851+1821321	M2.3±0.1	15.57±0.01	-42.9	-17.3	3.0	81.5	JS 93
2MASS J08411162+2215516	M2.4±0.1	14.66±0.01	-37.1	-18.2	3.1	94.8	HSHJ350
2MASS J09014517+2100228	M2.4±0.1	14.74±0.01	-35.9	-14.0	2.9	72.1	AD 4798
2MASS J08435926+1918581	M2.4±0.1	14.76±0.01	-30.8	-13.7	3.0	97.3	JS557 (M3; Adams et al. 2002)
2MASS J08330557+1855487	M2.4±0.1	14.80±0.01	-35.7	-15.0	3.0	98.7	JS 22
2MASS J08263483+1933590	M2.4±0.1	15.10±0.01	-36.6	-13.5	3.0	95.9	AD 0867
2MASS J08405397+2005243	M2.4±0.1	15.51±0.01	-37.1	-14.5	3.0	99.8	HSHJ333 (M3.5; Adams et al. 2002)
2MASS J08463821+1952448	M2.5±0.1	14.14±0.01	-27.6	-14.8	2.7	62.3	JS634
2MASS J08412446+2007495	M2.5±0.1	14.29±0.01	-36.1	-16.9	3.0	99.6	JS430 (M3.5; Adams et al. 2002)
2MASS J08425228+1951460	M2.5±0.1	14.79±0.01	-37.7	-9.9	3.0	99.4	JS506 (M3.5; Adams et al. 2002)
2MASS J08403106+1825562	M2.5±0.1	14.95±0.01	-30.6	-11.0	3.0	93.5	HSHJ322
2MASS J08334395+1847508	M2.5±0.1	15.20±0.01	-32.8	-12.2	3.0	97.6	JS 44
2MASS J08505687+1936578	M2.5±0.1	15.31±0.01	-37.9	-11.8	2.7	97.1	
2MASS J08323244+2050410	M2.5±0.1	15.34±0.01	-39.1	-19.3	3.1	90.9	JS 10
2MASS J08551045+1904117	M2.5±0.1	15.37±0.01	-31.5	-12.6	2.7	76.4	AD 4285
2MASS J08383067+1807182	M2.6±0.1	13.92±0.01	-35.9	-5.9	3.0	79.7	JS236
2MASS J08411052+1956067	M2.6±0.1	14.62±0.01	-31.1	-10.4	3.0	98.5	AD 2902 (M4; Adams et al. 2002)
2MASS J08423402+1936123	M2.6±0.1	14.71±0.01	-39.1	-14.3	3.0	99.6	JS490 (M3.5; Adams et al. 2002)
2MASS J08412881+1958322	M2.6±0.1	14.73±0.01	-38.9	-15.4	3.0	99.7	JS434 (M3.5; Adams et al. 2002)
2MASS J08325907+1718235	M2.6±0.1	14.80±0.01	-38.2	-10.8	3.0	93.1	AD 1695
2MASS J08263330+1715390	M2.6±0.1	14.91±0.01	-36.4	-9.6	3.0	76.7	AD 0864
2MASS J08305580+1708223	M2.6±0.2	15.10±0.01	-36.7	-9.3	3.0	85.1	AD 1421

TABLE 3
Candidate Members of Praesepe

2MASS J08383233+1846528	M2.6±0.1	15.12±0.01	-38.9	-9.8	3.0	98.5	AD 2413 (M3.5; Adams et al. 2002)
2MASS J08531665+1710100	M2.6±0.1	15.13±0.01	-31.5	-15.3	2.7	61.1	AD 4062
2MASS J08421923+1902148	M2.6±0.1	15.13±0.01	-31.0	-7.8	3.0	88.0	HSHJ417 (M3.5; Adams et al. 2002)
2MASS J08303516+1619173	M2.6±0.2	15.15±0.01	-32.5	-9.5	2.9	54.4	AD 1383
2MASS J08425050+1955038	M2.6±0.1	15.28±0.01	-38.1	-11.9	3.0	99.6	JS504 (M4; Adams et al. 2002)
2MASS J08372941+1841355	M2.6±0.1	15.73±0.01	-31.1	-17.2	3.0	93.8	HSHJ165
2MASS J08385694+1851293	M2.7±0.1	14.79±0.01	-39.6	-15.0	3.0	99.1	JS260 (M4; Adams et al. 2002)
2MASS J08413569+1844350	M2.7±0.2	14.92±0.01	-33.0	-13.2	3.0	98.9	JS441 (M3.5; Adams et al. 2002)
2MASS J08470910+1811372	M2.7±0.1	15.01±0.01	-35.1	-11.5	2.7	97.3	JS644
2MASS J08403058+1955588	M2.7±0.1	15.02±0.01	-38.9	-12.6	3.0	99.8	JS365 (M2.5; Adams et al. 2002)
2MASS J08362156+2053506	M2.7±0.1	15.05±0.01	-39.2	-16.9	3.0	98.6	JS125
2MASS J08421550+1948576	M2.7±0.1	15.24±0.01	-38.3	-12.2	3.0	99.7	JS476 (M3.5; Adams et al. 2002)
2MASS J08432240+1912007	M2.7±0.1	15.32±0.01	-36.1	-13.0	3.0	99.5	AD 3196 (M4; Adams et al. 2002)
2MASS J08385084+1800525	M2.7±0.1	15.65±0.01	-35.5	-10.9	3.0	98.2	HSHJ230
2MASS J08475073+2227038	M2.7±0.1	15.78±0.01	-37.3	-13.2	3.1	96.3	
2MASS J08460273+1701176	M2.7±0.1	15.81±0.01	-36.7	-11.5	2.7	94.2	AD 3477
2MASS J08380716+1746566	M2.8±0.1	14.75±0.01	-36.8	-14.7	3.0	98.3	HSHJ197
2MASS J08404779+2028479	M2.8±0.1	14.90±0.01	-39.5	-14.3	3.0	99.6	AD 2825 (M3; Adams et al. 2002)
2MASS J08444480+1924221	M2.8±0.1	15.00±0.01	-32.2	-13.7	3.0	98.6	JS574 (M4; Adams et al. 2002)
2MASS J08403626+1757003	M2.8±0.1	15.23±0.01	-33.8	-11.3	3.0	97.6	AD 2795
2MASS J08393175+1924176	M2.8±0.1	15.35±0.01	-34.0	-9.7	3.0	99.2	JS298 (M3; Adams et al. 2002)
2MASS J08374060+1933032	M2.8±0.1	15.46±0.01	-38.9	-15.5	3.0	99.5	
2MASS J08301410+1825199	M2.8±0.1	15.49±0.01	-38.9	-19.8	3.0	74.8	HSHJ 4
2MASS J08421833+1823320	M2.8±0.1	15.57±0.01	-29.3	-13.7	3.0	87.4	JS735
2MASS J08354589+2230425	M2.8±0.1	15.59±0.01	-36.7	-20.5	3.1	73.3	AD 2057
2MASS J08580519+2152462	M2.8±0.1	15.63±0.01	-36.8	-12.1	3.0	81.8	AD 4529
2MASS J08314090+1829429	M2.8±0.1	15.76±0.01	-36.7	-15.9	3.0	97.3	HSHJ 16
2MASS J08373074+2107402	M2.8±0.1	15.81±0.01	-38.4	-14.8	3.0	99.3	
2MASS J08365106+1904185	M2.8±0.1	15.85±0.01	-33.8	-12.0	3.0	99.2	HSHJ136 (M3.5; Adams et al. 2002)
2MASS J08382537+1856300	M2.9±0.1	14.39±0.01	-37.9	-12.5	3.0	99.5	JS230
2MASS J08351477+1916317	M2.9±0.1	14.69±0.01	-35.2	-14.5	3.0	99.3	HSHJ 70 (M3.1; Kafka & Honeycutt 2006)
2MASS J08344931+1725480	M2.9±0.1	14.93±0.01	-37.6	-11.7	3.0	96.3	AD 1940
2MASS J08413921+1940282	M2.9±0.1	14.95±0.01	-36.2	-12.9	3.0	99.8	JS447 (M3.5; Adams et al. 2002)
2MASS J08343431+1847565	M2.9±0.3	15.00±0.01	-33.1	-12.7	3.0	98.3	JS 62 (M3.5; Kafka & Honeycutt 2006)
2MASS J08512584+1918564	M2.9±0.1	15.08±0.01	-38.6	-14.9	2.7	96.2	AD 3875
2MASS J08510040+1803038	M2.9±0.1	15.13±0.01	-41.4	-12.7	2.7	84.8	AD 3840
2MASS J08460318+1931471	M2.9±0.2	15.19±0.01	-37.5	-14.0	2.7	99.3	JS618 (M3.5; Adams et al. 2002)
2MASS J08451557+2103359	M2.9±0.1	15.32±0.01	-40.3	-12.8	3.0	98.3	HSHJ496
2MASS J08395276+2001052	M2.9±0.1	15.32±0.01	-35.8	-15.8	3.0	99.8	JS321 (M3; Allen & Strom 1995)
2MASS J08473450+1737507	M2.9±0.1	15.35±0.01	-37.4	-19.4	2.7	80.7	AD 3595
2MASS J08441093+2147383	M2.9±0.1	15.38±0.01	-38.5	-19.7	3.1	88.9	HSHJ475
2MASS J08532748+1758335	M2.9±0.2	15.48±0.01	-33.0	-11.2	2.7	82.3	AD 4089
2MASS J08482357+1950117	M2.9±0.1	15.49±0.01	-38.6	-12.9	2.7	98.5	
2MASS J08401690+2042422	M2.9±0.2	15.66±0.01	-38.9	-11.8	3.9	99.5	JS720 (M4; Adams et al. 2002)
2MASS J08443449+2020295	M2.9±0.2	15.91±0.01	-31.2	-15.8	3.0	97.3	AD 3329
2MASS J08324481+1802101	M3.0±0.1	14.42±0.01	-41.4	-9.4	3.0	82.8	AD 1660
2MASS J08371990+1903119	M3.0±0.1	14.51±0.01	-37.5	-14.3	3.0	99.7	JS174 (M3; Adams et al. 2002)
2MASS J08492207+2216219	M3.0±0.1	14.91±0.01	-42.0	-18.4	3.1	52.2	HSHJ511
2MASS J08385103+1951021	M3.0±0.1	15.03±0.01	-42.1	-13.1	3.0	99.5	JS250 (M4; Adams et al. 2002)
2MASS J08360896+1909309	M3.0±0.1	15.04±0.01	-37.5	-15.4	3.0	99.6	JS111
2MASS J08454448+1940324	M3.0±0.1	15.06±0.01	-36.3	-17.2	2.7	99.2	JS608
2MASS J08443290+1857506	M3.0±0.1	15.07±0.01	-37.9	-15.5	3.0	99.4	JS568 (M3.2; Kafka & Honeycutt 2006)
2MASS J08413662+1854155	M3.0±0.2	15.13±0.01	-33.2	-16.6	3.0	99.1	JS443 (M4; Adams et al. 2002)
2MASS J08554365+1937424	M3.0±0.1	15.13±0.01	-40.4	-13.0	2.7	80.4	
2MASS J08395264+2030464	M3.0±0.2	15.18±0.01	-30.3	-11.5	3.0	98.8	JS715 (M3.5; Adams et al. 2002)
2MASS J08394572+1858340	M3.0±0.2	15.22±0.01	-39.8	-12.2	3.0	99.5	JS315 (M3.5; Adams et al. 2002)
2MASS J08361916+1953549	M3.0±0.1	15.25±0.01	-37.9	-12.6	3.0	99.8	JS123 (M4; Adams et al. 2002)
2MASS J08321889+1903086	M3.0±0.1	15.48±0.01	-37.1	-16.4	3.0	98.4	HSHJ 23
2MASS J08391889+1848365	M3.0±0.1	15.48±0.01	-36.8	-14.0	3.0	99.7	JS708 (M4; Adams et al. 2002)
2MASS J08343970+1908126	M3.0±0.1	15.48±0.01	-38.0	-14.6	3.0	99.4	HSHJ 60
2MASS J08375488+1929097	M3.0±0.1	15.55±0.01	-38.2	-13.0	3.0	99.8	
2MASS J08413235+1840107	M3.0±0.2	15.58±0.01	-28.0	-9.3	3.0	64.6	JS439 (M3.5; Adams et al. 2002)
2MASS J08340314+2020305	M3.0±0.1	15.65±0.01	-34.7	-17.0	3.1	99.0	AD 1841
2MASS J08363122+1935334	M3.0±0.1	15.69±0.01	-35.4	-13.2	3.0	99.8	JS693 (M4; Adams et al. 2002)
2MASS J08225141+1848025	M3.0±0.1	16.01±0.01	-33.8	-9.7	3.0	58.6	AD 0520
2MASS J08243324+1917432	M3.1±0.1	14.89±0.01	-34.8	-15.7	3.0	86.4	AD 0666
2MASS J08401310+2003281	M3.1±0.1	14.93±0.01	-38.1	-11.5	3.0	99.9	HSHJ303 (M4; Adams et al. 2002)
2MASS J08353967+1907364	M3.1±0.1	14.97±0.01	-34.5	-13.5	3.0	99.5	JS 94 (M3.2; Kafka & Honeycutt 2006)
2MASS J08340489+2040473	M3.1±0.1	15.05±0.01	-35.8	-13.3	3.1	99.5	JS 53
2MASS J08385517+2013089	M3.1±0.1	15.23±0.01	-40.9	-15.7	3.0	99.7	JS255 (M4; Adams et al. 2002)
2MASS J08433684+2032244	M3.1±0.1	15.26±0.01	-34.5	-14.2	3.0	99.7	AD 3225 (M4; Adams et al. 2002)
2MASS J08385566+1715095	M3.1±0.1	15.39±0.01	-34.7	-11.8	3.0	96.4	AD 2482
2MASS J08384798+2117544	M3.1±0.2	15.45±0.01	-33.3	-19.1	3.0	96.6	HSHJ226
2MASS J08410689+1926370	M3.1±0.1	15.51±0.01	-39.0	-15.9	3.0	99.7	AD 2885 (M4; Adams et al. 2002)
2MASS J08463894+1937088	M3.1±0.3	15.57±0.01	-35.9	-14.8	2.7	99.4	AD 3547
2MASS J08412602+1959151	M3.1±0.1	15.70±0.01	-36.7	-14.6	3.0	99.9	JS729 (M4; Adams et al. 2002)
2MASS J08422804+1714485	M3.1±0.1	15.75±0.01	-36.3	-7.1	3.0	78.2	

TABLE 3
Candidate Members of Praesepe

2MASS J08362943+2103104	M3.1±0.1	15.85±0.01	-36.7	-14.2	3.0	99.6	HSHJ125
2MASS J08402241+2038271	M3.2±1.7	13.88±0.01	-38.4	-15.7	3.0	99.8	JS353 (K7; Adams et al. 2002)
2MASS J08491651+2135121	M3.2±0.1	14.21±0.01	-37.1	-8.6	3.0	91.6	HSHJ510
2MASS J08433536+1900141	M3.2±0.1	14.44±0.01	-33.2	-13.4	3.0	99.4	JS541 (M4; Adams et al. 2002)
2MASS J08361429+1925303	M3.2±0.1	14.55±0.01	-37.0	-13.7	3.0	99.8	JS689 (M3.5; Adams et al. 2002)
2MASS J08384393+1917383	M3.2±0.1	14.61±0.01	-38.2	-14.3	3.0	99.8	JS246 (M3.5; Adams et al. 2002)
2MASS J08414946+2004362	M3.2±0.1	14.62±0.01	-33.1	-15.1	3.0	99.8	HSHJ393 (M3.5; Adams et al. 2002)
2MASS J08401085+1858570	M3.2±0.1	14.65±0.01	-35.1	-10.7	3.0	99.6	JS344 (M3.5; Adams et al. 2002)
2MASS J08441913+1856099	M3.2±0.1	14.77±0.01	-36.4	-15.0	3.0	99.5	JS564 (M4; Adams et al. 2002)
2MASS J08291780+1742115	M3.2±0.1	14.77±0.01	-36.5	-17.2	3.0	87.2	AD 1215
2MASS J08383748+1915286	M3.2±0.1	15.06±0.01	-37.9	-15.5	3.0	99.8	JS241 (M4; Adams et al. 2002)
2MASS J08443259+2140592	M3.2±0.1	15.12±0.01	-40.6	-17.6	3.0	94.6	AD 3327
2MASS J08340049+1855361	M3.2±0.1	15.20±0.01	-33.5	-12.7	3.0	98.9	HSHJ 52 (M3.6; Kafka & Honeycutt 2006)
2MASS J08462388+1958043	M3.2±0.1	15.26±0.01	-35.5	-13.1	2.7	99.5	AD 3511
2MASS J08354722+1808300	M3.2±0.1	15.38±0.01	-38.0	-12.9	3.0	98.8	HSHJ 87
2MASS J08394360+2029395	M3.2±0.1	15.42±0.01	-34.6	-11.3	3.0	99.8	JS311 (M3.5; Allen & Strom 1995)
2MASS J08442259+1823093	M3.2±0.2	15.63±0.01	-34.1	-13.3	3.0	98.9	JS744
2MASS J08321786+1932495	M3.2±0.2	15.69±0.01	-36.6	-15.5	3.0	99.1	HSHJ 22
2MASS J08395316+1924037	M3.2±0.1	15.71±0.01	-32.8	-4.6	3.0	82.3	AD 2642 (M4; Adams et al. 2002)
2MASS J08390291+1931572	M3.3±0.1	14.62±0.01	-39.3	-14.9	3.0	99.8	JC143 (M3.5; Adams et al. 2002)
2MASS J08330845+2026372	M3.3±0.1	14.64±0.01	-32.2	-17.1	3.1	96.8	
2MASS J08383906+2010148	M3.3±0.1	14.94±0.01	-38.7	-14.6	3.0	99.9	JS243 (M3.5; Adams et al. 2002)
2MASS J08354015+1842283	M3.3±0.1	15.05±0.01	-35.3	-13.0	3.0	99.4	JS 95 (M3.8; Kafka & Honeycutt 2006)
2MASS J08393466+1948002	M3.3±0.1	15.07±0.01	-34.3	-17.6	9.6	99.8	HSHJ272 (M3.5; Adams et al. 2002)
2MASS J08372789+1954126	M3.3±0.1	15.18±0.01	-36.3	-12.8	3.0	99.9	AD 2328 (M3.5; Adams et al. 2002)
2MASS J08474180+1856287	M3.3±0.1	15.21±0.01	-37.2	-13.9	2.7	98.9	
2MASS J08311310+2054003	M3.3±0.2	15.47±0.01	-39.6	-12.9	3.1	97.8	AD 1465
2MASS J08400249+1940353	M3.3±0.1	15.48±0.01	-35.8	-13.1	3.0	99.9	HSHJ293 (M4; Adams et al. 2002)
2MASS J08463486+1915260	M3.3±0.1	15.55±0.01	-38.6	-17.3	2.7	98.3	AD 3534
2MASS J08362039+2007003	M3.3±0.2	15.55±0.01	-42.8	-10.4	3.0	97.2	JS691 (M3.5; Adams et al. 2002)
2MASS J08350623+1849246	M3.3±0.1	15.63±0.01	-38.6	-12.8	3.0	99.3	JS680 (M4.1; Kafka & Honeycutt 2006)
2MASS J08400249+1916397	M3.3±0.2	15.83±0.01	-37.2	-14.4	3.0	99.8	JS717 (M3.9; Kafka & Honeycutt 2006)
2MASS J08423077+1929310	M3.3±0.1	15.85±0.01	-37.0	-12.1	3.0	99.8	HSHJ424 (M3.5; Adams et al. 2002)
2MASS J08422111+2003208	M3.3±0.1	15.99±0.01	-35.7	-18.7	3.0	99.5	HSHJ419 (M4; Adams et al. 2002)
2MASS J08401146+2004032	M3.4±0.1	14.52±0.01	-44.7	-12.4	3.0	97.4	HSHJ300 (M4; Adams et al. 2002)
2MASS J08453685+1835553	M3.4±0.1	14.76±0.01	-33.3	-16.8	2.7	97.4	AD 3428
2MASS J08462006+1841007	M3.4±0.3	14.93±0.01	-30.4	-14.1	2.8	93.2	AD 3505
2MASS J08392667+2025523	M3.4±0.1	15.27±0.01	-39.2	-10.9	3.0	99.8	AD 2562 (M4; Adams et al. 2002)
2MASS J08504984+1948364	M3.4±0.1	15.34±0.01	-37.5	-14.1	2.7	97.9	AD 3814
2MASS J08412614+1748127	M3.4±0.1	15.41±0.01	-33.6	-11.6	3.0	97.6	HSHJ372
2MASS J08453218+1857521	M3.4±0.1	15.55±0.01	-30.6	-13.7	2.8	96.2	AD 3420 (M4; Adams et al. 2002)
2MASS J08433262+1959330	M3.4±0.2	15.57±0.01	-40.5	-16.0	2.8	99.4	HSHJ458 (M4; Adams et al. 2002)
2MASS J08324679+1959517	M3.4±0.1	15.60±0.01	-39.3	-17.6	3.0	97.7	HSHJ 25
2MASS J08495937+1910010	M3.4±0.1	15.64±0.01	-39.1	-16.5	2.7	95.7	
2MASS J08400416+1924502	M3.4±0.1	15.66±0.01	-33.2	-11.8	3.0	99.7	JS718 (M4.5; Adams et al. 2002)
2MASS J08261745+1943357	M3.4±0.1	15.68±0.01	-35.6	-16.4	3.0	92.0	AD 0839
2MASS J08392131+2205207	M3.4±0.1	15.74±0.01	-39.6	-17.6	3.0	95.7	HSHJ259
2MASS J08410314+1855550	M3.4±0.2	15.74±0.01	-34.3	-7.6	3.0	97.8	JS724 (M4; Adams et al. 2002)
2MASS J08533302+2014536	M3.4±0.1	15.76±0.01	-39.8	-9.0	2.7	78.6	AD 4098
2MASS J08380462+2039352	M3.4±0.3	15.82±0.01	-35.1	-17.2	3.0	99.6	JS704
2MASS J08285027+2107411	M3.4±0.3	15.86±0.01	-32.5	-19.0	3.1	72.3	AD 1168
2MASS J08412034+1857430	M3.4±0.2	15.88±0.01	-31.3	-12.6	3.0	98.8	HSHJ364 (M4; Adams et al. 2002)
2MASS J08394051+1918539	M3.4±0.1	15.91±0.01	-40.5	-9.6	3.0	99.2	HSHJ279 (M4; Adams et al. 2002)
2MASS J08413737+2012368	M3.4±0.2	15.96±0.01	-38.0	-13.8	3.0	99.9	HSHJ381 (M4; Adams et al. 2002)
2MASS J08423495+1855458	M3.4±0.1	15.96±0.01	-26.7	-11.7	3.0	57.3	HSHJ426 (M4.5; Adams et al. 2002)
2MASS J08420159+1926461	M3.4±0.1	15.97±0.01	-41.8	-18.6	3.0	97.0	HSHJ404 (M4; Adams et al. 2002)
2MASS J08305140+1853515	M3.4±0.1	16.06±0.01	-39.2	-14.3	3.0	97.5	HSHJ 8
2MASS J08544575+2141579	M3.4±0.1	16.06±0.01	-40.8	-17.5	3.0	55.3	AD 4239
2MASS J08282020+1915307	M3.4±0.1	16.07±0.01	-33.3	-15.5	3.0	93.7	AD 1098
2MASS J08405572+1849343	M3.4±0.1	16.15±0.01	-32.3	-15.1	3.0	99.1	HSHJ338 (M4; Adams et al. 2002)
2MASS J08414174+1949575	M3.4±0.1	16.29±0.01	-37.0	-17.8	3.0	99.7	AD 3001 (M4.5; Adams et al. 2002)
2MASS J08373305+2040100	M3.4±0.1	16.37±0.01	-35.7	-13.1	3.0	99.8	HSHJ167
2MASS J08394521+2007274	M3.5±0.1	14.94±0.01	-35.0	-11.1	3.0	99.9	JS313 (M4; Adams et al. 2002)
2MASS J08331663+2120204	M3.5±0.2	14.97±0.01	-32.7	-17.0	3.1	95.8	AD 1737
2MASS J08331347+2033011	M3.5±0.1	15.13±0.01	-39.4	-16.4	3.1	98.5	AD 1727
2MASS J08324877+1840407	M3.5±0.1	15.19±0.01	-35.0	-13.9	3.0	98.7	HSHJ 26
2MASS J08440699+1947301	M3.5±0.1	15.33±0.01	-33.6	-7.8	3.0	97.9	AD 3273 (M4; Adams et al. 2002)
2MASS J08343429+2122073	M3.5±0.3	15.34±0.01	-32.5	-15.2	3.0	97.9	AD 1915
2MASS J08375712+1927499	M3.5±0.1	15.44±0.01	-37.3	-11.7	3.0	99.8	JS702 (M3.6; Kafka & Honeycutt 2006)
2MASS J08370714+2046439	M3.5±0.1	15.45±0.01	-35.9	-10.6	3.0	99.6	AD 2272
2MASS J08412772+2103409	M3.5±0.1	15.46±0.01	-39.4	-15.6	3.0	99.5	JS730 (M4.6; Kafka & Honeycutt 2006)
2MASS J08421753+1759148	M3.5±0.1	15.51±0.01	-34.3	-11.6	3.0	98.4	HSHJ416
2MASS J08455916+1915126	M3.5±0.1	15.56±0.01	-41.8	-11.0	2.7	96.6	AD 3470 (M4; Adams et al. 2002)
2MASS J08442769+1858096	M3.5±0.2	15.56±0.01	-36.8	-12.2	3.0	99.5	JS745 (M4; Adams et al. 2002)
2MASS J08442555+2235591	M3.5±0.1	15.61±0.01	-38.1	-18.7	3.1	87.4	HSHJ482
2MASS J08413383+2247556	M3.5±0.1	15.62±0.01	-35.2	-19.1	3.1	84.7	AD 2970
2MASS J08414413+2036159	M3.5±0.1	15.66±0.01	-35.8	-13.2	3.0	99.8	AD 3010 (M4; Adams et al. 2002)

TABLE 3
Candidate Members of Praesepe

2MASS J08420785+2211051	M3.5±0.1	15.68±0.01	-40.7	-18.2	3.1	89.7	HSHJ406
2MASS J08433659+2119097	M3.5±0.1	15.68±0.01	-41.3	-18.3	3.0	94.1	JS539
2MASS J08364118+2016399	M3.5±0.1	15.81±0.01	-39.9	-13.9	3.0	99.7	AD 2205 (M4; Adams et al. 2002)
2MASS J08411749+2032330	M3.5±0.2	15.82±0.01	-43.1	-12.6	3.0	98.5	JS727 (M4; Adams et al. 2002)
2MASS J08253573+2106085	M3.5±0.1	16.00±0.01	-34.8	-16.5	3.1	86.7	AD 0755
2MASS J08431586+1906331	M3.5±0.1	16.02±0.01	-32.3	-14.0	3.0	99.2	AD 3187 (M4.5; Adams et al. 2002)
2MASS J08282693+2006171	M3.5±0.1	16.06±0.01	-39.1	-14.2	3.1	96.4	AD 1121
2MASS J08423762+1959189	M3.5±0.2	16.06±0.01	-31.9	-12.3	3.0	99.5	HSHJ428 (M4.5; Adams et al. 2002)
2MASS J08314297+1829064	M3.5±0.2	16.09±0.01	-38.2	-17.1	3.0	95.8	HSHJ 17
2MASS J08383412+2046292	M3.5±0.1	16.11±0.01	-32.8	-9.0	3.0	98.8	AD 2420
2MASS J08482603+2236312	M3.5±0.1	16.12±0.01	-40.6	-17.9	3.1	71.6	HSHJ504
2MASS J08380800+2003505	M3.5±0.1	16.19±0.01	-37.3	-13.2	3.0	99.9	HSHJ195
2MASS J08475052+1909110	M3.5±0.1	16.19±0.01	-29.9	-15.7	2.7	87.7	
2MASS J08330771+1845157	M3.5±0.1	16.25±0.01	-35.6	-12.3	3.0	98.9	HSHJ 33
2MASS J08273094+2209003	M3.5±0.1	16.33±0.01	-32.0	-18.2	3.1	52.4	AD 0985
2MASS J08330040+2043103	M3.6±0.1	14.64±0.01	-40.3	-14.3	3.1	98.5	JS 19
2MASS J08411405+2044297	M3.6±0.1	14.81±0.01	-39.9	-15.2	3.0	99.6	JS416 (M4; Adams et al. 2002)
2MASS J08405231+1910284	M3.6±0.1	14.82±0.01	-34.1	-10.4	3.0	99.6	JS391 (M4.1; Kafka & Honeycutt 2006)
2MASS J08380061+1857529	M3.6±0.3	15.02±0.01	-34.7	-13.5	3.0	99.7	JS208
2MASS J08460223+1906595	M3.6±0.1	15.07±0.01	-32.8	-14.5	2.7	98.7	JS617 (M3.5; Adams et al. 2002)
2MASS J08454868+2131565	M3.6±0.1	15.24±0.01	-35.6	-17.2	3.0	97.9	JS756
2MASS J08385776+1846309	M3.6±0.1	15.37±0.01	-34.6	-11.5	3.0	99.5	HSHJ242 (M4; Adams et al. 2002)
2MASS J08430615+1924521	M3.6±0.2	15.46±0.01	-34.5	-12.9	3.0	99.7	JS514 (M4.1; Kafka & Honeycutt 2006)
2MASS J08425674+2004181	M3.6±0.1	15.52±0.01	-36.0	-12.8	3.0	99.8	HSHJ436 (M4; Adams et al. 2002)
2MASS J08432759+1949405	M3.6±0.3	15.57±0.01	-37.1	-13.5	3.0	99.8	HSHJ455 (M4; Adams et al. 2002)
2MASS J08443186+1933173	M3.6±0.2	15.65±0.01	-35.4	-15.3	3.0	99.6	JS748 (M4; Adams et al. 2002)
2MASS J08372283+1741152	M3.6±0.1	15.77±0.01	-32.3	-9.4	3.0	90.3	AD 2306
2MASS J08375727+2240554	M3.6±0.1	15.80±0.01	-40.6	-19.8	3.1	63.5	HSHJ185
2MASS J08461827+1843092	M3.6±0.1	15.90±0.01	-33.2	-15.3	2.7	98.1	JS757
2MASS J08320188+1958471	M3.6±0.1	15.91±0.01	-37.6	-15.9	3.0	98.9	HSHJ 19
2MASS J08413650+2034042	M3.6±0.1	15.91±0.01	-43.0	-13.8	3.0	98.5	JS733 (M4; Adams et al. 2002)
2MASS J08451494+1845399	M3.6±0.2	16.07±0.01	-32.7	-10.5	3.0	97.7	AD 3392
2MASS J08380676+1934178	M3.6±0.2	16.11±0.01	-36.9	-14.3	3.0	99.9	HSHJ194 (M3.1; Kafka & Honeycutt 2006)
2MASS J08333838+2028525	M3.6±0.3	16.12±0.01	-35.1	-13.7	3.1	99.4	AD 1786
2MASS J08351605+1912077	M3.6±0.1	16.16±0.01	-35.8	-15.0	3.0	99.6	HSHJ 71 (M3.9; Kafka & Honeycutt 2006)
2MASS J08354730+1935227	M3.6±0.1	16.18±0.01	-37.9	-17.3	3.0	99.4	HSHJ 86 (M3.9; Kafka & Honeycutt 2006)
2MASS J08480129+1949391	M3.6±0.1	16.19±0.01	-32.3	-20.2	2.7	80.0	
2MASS J08425668+2030422	M3.6±0.1	16.21±0.01	-31.9	-7.5	3.0	95.9	AD 3148 (M4.5; Adams et al. 2002)
2MASS J08385547+1950334	M3.6±0.2	16.22±0.01	-37.5	-11.0	3.0	99.9	HSHJ235 (M4.5; Adams et al. 2002)
2MASS J08372449+1947120	M3.6±0.1	16.29±0.01	-39.4	-12.1	3.0	99.8	HSHJ158 (M4.5; Adams et al. 2002)
2MASS J08413252+2006068	M3.6±0.2	16.39±0.01	-31.5	-13.9	3.0	99.6	HSHJ376 (M4; Adams et al. 2002)
2MASS J08405548+1817523	M3.6±0.2	16.50±0.01	-39.9	-7.4	3.0	91.7	AD 2853
2MASS J08460817+1802272	M3.6±0.2	16.57±0.01	-36.5	-13.5	3.6	98.3	AD 3484
2MASS J08422601+2113510	M3.7±0.1	14.58±0.01	-43.5	-11.9	3.0	94.0	AD 3085
2MASS J08391510+1943316	M3.7±0.1	14.71±0.01	-37.1	-11.9	3.0	99.9	JS706 (M3.5; Adams et al. 2002)
2MASS J08401158+1939118	M3.7±0.2	14.75±0.01	-33.5	-11.9	3.0	99.8	HSHJ302 (M4; Adams et al. 2002)
2MASS J08403937+1956238	M3.7±0.1	15.37±0.01	-38.0	-11.0	3.0	99.9	AD 2802 (M4; Adams et al. 2002)
2MASS J08363947+2022339	M3.7±0.1	15.45±0.01	-36.5	-18.1	3.0	99.4	JS141
2MASS J08332462+1952579	M3.7±0.1	15.48±0.01	-38.6	-14.4	3.0	99.4	JS669
2MASS J08331799+1916328	M3.7±0.1	15.52±0.01	-37.6	-16.4	3.0	98.9	JS667
2MASS J08394730+1939344	M3.7±0.3	15.61±0.01	-35.4	-11.5	3.0	99.9	
2MASS J08292058+1810459	M3.7±0.1	15.70±0.01	-34.6	-15.5	3.0	93.7	AD 1223
2MASS J08355945+2004405	M3.7±0.1	15.70±0.01	-37.5	-12.6	3.0	99.8	JS687 (M4; Adams et al. 2002)
2MASS J08310663+2113463	M3.7±0.1	15.75±0.01	-44.8	-14.0	4.2	57.4	AD 1448
2MASS J08405844+1850463	M3.7±0.1	15.77±0.01	-33.7	-16.5	3.0	99.3	JS723 (M4; Adams et al. 2002)
2MASS J08471939+1912520	M3.7±0.1	15.84±0.01	-30.3	-18.9	2.7	75.1	JS759
2MASS J08390512+1945264	M3.7±0.1	15.84±0.01	-35.7	-12.0	3.0	99.9	HSHJ248 (M4; Adams et al. 2002)
2MASS J08260122+2215200	M3.7±0.1	15.86±0.01	-36.3	-10.6	3.1	81.6	AD 0809
2MASS J08413586+2117371	M3.7±0.1	16.08±0.01	-40.2	-18.6	4.0	96.8	HSHJ378
2MASS J08431265+1934290	M3.7±0.1	16.11±0.01	-36.2	-19.7	3.0	98.5	HSHJ445 (M4.5; Adams et al. 2002)
2MASS J08480745+1954592	M3.7±0.1	16.15±0.01	-37.4	-18.2	2.7	97.2	
2MASS J08372707+1848394	M3.7±0.1	16.16±0.01	-33.5	-12.9	3.0	99.4	HSHJ164 (M4; Adams et al. 2002)
2MASS J08421272+1841011	M3.7±0.1	16.19±0.01	-30.4	-12.2	3.0	96.7	AD 3061 (M4; Adams et al. 2002)
2MASS J08393066+1758513	M3.7±0.2	16.21±0.01	-35.1	-12.2	3.0	98.9	HSHJ271
2MASS J08450590+1917575	M3.7±0.1	16.23±0.01	-35.0	-14.1	3.0	99.6	AD 3369
2MASS J08432029+2004456	M3.7±0.1	16.26±0.01	-38.7	-9.7	3.0	99.5	HSHJ452 (M4.5; Adams et al. 2002)
2MASS J08452116+1853035	M3.7±0.1	16.28±0.01	-30.1	-18.4	4.0	82.4	AD 3401
2MASS J08360333+1925288	M3.7±0.1	16.33±0.01	-38.5	-9.5	3.0	99.2	HSHJ100 (M4; Adams et al. 2002)
2MASS J08400367+1954595	M3.8±0.1	15.05±0.01	-35.2	-14.1	3.0	99.9	AD 2676 (M4; Adams et al. 2002)
2MASS J08430839+1928061	M3.8±0.1	15.08±0.01	-34.4	-10.0	3.0	99.5	JS521 (M4.5; Adams et al. 2002)
2MASS J08474886+1836195	M3.8±0.1	15.46±0.01	-37.1	-15.6	2.7	98.2	JS761
2MASS J08452240+1902082	M3.8±0.1	15.52±0.01	-33.4	-12.0	2.8	99.0	AD 3403 (M4.5; Adams et al. 2002)
2MASS J08351387+2311580	M3.8±0.1	15.56±0.01	-42.6	-13.1	3.1	66.4	AD 1988
2MASS J08460002+1749387	M3.8±0.1	15.86±0.01	-39.5	-10.8	2.7	95.0	AD 3472
2MASS J08391960+2017306	M3.8±0.2	15.91±0.01	-26.3	-10.7	3.0	70.4	AD 2545 (M4.5; Adams et al. 2002)
2MASS J08320273+2046207	M3.8±0.2	15.96±0.01	-37.9	-13.4	3.1	99.0	AD 1572
2MASS J08392745+1814556	M3.8±0.2	15.98±0.01	-35.4	-5.9	3.0	85.6	AD 2566

TABLE 3
Candidate Members of Praesepe

2MASS J08433462+1845138	M3.8±0.1	16.00±0.01	-31.0	-17.9	3.0	93.4	AD 3218
2MASS J08351934+1945412	M3.8±0.1	16.03±0.01	-35.6	-14.1	3.0	99.7	HSHJ 75 (M4.5; Adams et al. 2002)
2MASS J08395441+1927372	M3.8±0.1	16.05±0.01	-33.5	-13.3	3.0	99.8	HSHJ291 (M4; Adams et al. 2002)
2MASS J08401707+1836298	M3.8±0.1	16.05±0.01	-34.1	-10.5	3.0	99.1	HSHJ310 (M4; Adams et al. 2002)
2MASS J08365052+1840541	M3.8±0.2	16.06±0.01	-33.2	-12.5	3.0	99.1	HSHJ135
2MASS J08345495+2138544	M3.8±0.1	16.06±0.01	-34.4	-14.6	3.0	98.7	AD 1951
2MASS J08362241+2007070	M3.8±0.2	16.17±0.01	-32.5	-8.8	3.0	98.5	AD 2155
2MASS J08475384+1907533	M3.8±0.2	16.18±0.01	-28.8	-11.8	2.7	76.5	
2MASS J08383709+2114488	M3.8±0.1	16.27±0.01	-33.4	-15.5	3.0	99.3	HSHJ210
2MASS J08413355+1933002	M3.8±0.1	16.39±0.01	-37.7	-11.4	3.0	99.8	AD 2969 (M4; Adams et al. 2002)
2MASS J08393071+1856533	M3.8±0.2	16.55±0.01	-32.1	-9.6	3.0	98.4	HSHJ269 (M4.5; Adams et al. 2002)
2MASS J08380809+1844300	M3.8±0.1	16.56±0.01	-34.7	-19.1	3.0	97.6	HSHJ196
2MASS J08383349+2240350	M3.8±0.1	16.59±0.01	-37.7	-11.9	4.2	97.0	HSHJ205
2MASS J08334526+1939160	M3.9±0.1	15.42±0.01	-37.2	-13.6	3.0	99.5	JS672
2MASS J08405590+1814462	M3.9±0.1	15.50±0.01	-33.4	-11.6	3.0	98.6	HSHJ341
2MASS J08331098+1929221	M3.9±0.1	15.63±0.01	-37.3	-13.4	3.0	99.4	HSHJ 34
2MASS J08361207+1844077	M3.9±0.1	15.65±0.01	-34.9	-14.6	3.0	99.4	JS688
2MASS J08444422+2107134	M3.9±0.3	15.89±0.01	-35.1	-13.7	9.6	99.4	JS750
2MASS J08341389+2123521	M3.9±0.1	15.98±0.01	-33.6	-18.0	3.1	96.1	AD 1868
2MASS J08442321+2013557	M3.9±0.1	16.07±0.01	-36.1	-17.2	3.0	99.5	AD 3312 (M4.5; Adams et al. 2002)
2MASS J08390308+1924155	M3.9±0.2	16.09±0.01	-37.2	-11.4	3.0	99.8	HSHJ246 (M4.5; Adams et al. 2002)
2MASS J08423943+1924520	M3.9±0.3	16.17±0.01	-37.5	-8.2	3.0	99.1	HSHJ430 (M4.5; Adams et al. 2002)
2MASS J08403416+1821331	M3.9±0.1	16.23±0.01	-32.7	-13.0	3.0	98.8	HSHJ326
2MASS J08394675+1944126	M3.9±0.2	16.33±0.01	-35.2	-9.7	3.0	99.8	JS713 (M4.5; Adams et al. 2002)
2MASS J08433550+1927234	M3.9±0.1	16.34±0.01	-39.0	-14.3	2.9	99.7	AD 3221
2MASS J08415359+1936306	M3.9±0.2	16.36±0.01	-36.2	-13.0	3.9	99.9	HSHJ397 (M4.5; Adams et al. 2002)
2MASS J08393244+2102526	M3.9±0.1	16.37±0.01	-35.7	-15.3	4.0	99.7	HSHJ268
2MASS J08361616+1922407	M3.9±0.2	16.44±0.01	-41.4	-14.4	3.9	99.0	HSHJ113 (M3.3; Kafka & Honeycutt 2006)
2MASS J08365404+1937018	M3.9±0.2	16.50±0.01	-33.5	-15.5	3.0	99.6	HSHJ140 (M4; Adams et al. 2002)
2MASS J08593784+2149540	M4.0±0.1	14.79±0.01	-39.9	-11.6	3.0	58.1	AD 4658
2MASS J08431012+1928360	M4.0±0.1	14.87±0.01	-44.6	-20.0	3.0	94.4	JS523 (M4.4; Kafka & Honeycutt 2006)
2MASS J08372243+2202003	M4.0±0.1	14.94±0.01	-39.4	-17.7	3.0	96.4	AD 2305
2MASS J08403942+1942553	M4.0±0.2	15.32±0.01	-38.2	-9.4	3.0	99.6	AD 2803 (M4; Adams et al. 2002)
2MASS J08394255+1918288	M4.0±0.1	15.38±0.01	-36.9	-18.7	3.0	99.3	JS711 (M4.5; Adams et al. 2002)
2MASS J08393094+1958019	M4.0±0.1	15.39±0.01	-38.5	-16.8	3.0	99.7	JS710 (M4.5; Adams et al. 2002)
2MASS J08444277+2057468	M4.0±0.1	15.55±0.01	-41.6	-16.5	3.0	97.9	
2MASS J08530438+1744311	M4.0±0.1	15.56±0.01	-38.9	-5.7	10.0	59.4	AD 4042
2MASS J08380113+1958430	M4.0±0.1	15.58±0.01	-37.3	-14.3	3.0	99.7	JS703 (M4.4; Kafka & Honeycutt 2006)
2MASS J08464281+1925343	M4.0±0.2	15.73±0.01	-40.5	-14.3	2.7	98.2	
2MASS J08452663+1914127	M4.0±0.2	15.74±0.01	-35.9	-15.9	2.8	98.9	AD 3413 (M4.5; Adams et al. 2002)
2MASS J08394203+2017450	M4.0±0.1	15.81±0.01	-39.3	-11.6	3.0	99.7	AD 2615 (M4; Adams et al. 2002)
2MASS J08343499+1904229	M4.0±0.1	16.08±0.01	-39.7	-16.4	3.0	98.3	HSHJ 57 (M4.3; Kafka & Honeycutt 2006)
2MASS J08503527+2042376	M4.0±0.1	16.14±0.01	-34.9	-15.2	4.0	96.2	AD 3788
2MASS J08314044+2116245	M4.0±0.2	16.28±0.01	-32.8	-25.3	3.1	54.3	AD 1524
2MASS J08384569+2039439	M4.0±0.2	16.28±0.01	-30.6	-6.5	3.0	97.3	AD 2452 (M4; Adams et al. 2002)
2MASS J08453688+1843251	M4.0±0.1	16.37±0.01	-34.8	-9.6	2.7	97.8	AD 3429
2MASS J08471907+2111021	M4.0±0.1	16.38±0.01	-36.7	-17.4	3.9	97.3	
2MASS J08405326+1844540	M4.0±0.2	16.43±0.01	-34.8	-15.5	3.0	99.1	AD 2840 (M4; Adams et al. 2002)
2MASS J08464032+1916304	M4.0±0.1	16.45±0.01	-38.0	-19.1	2.7	97.2	
2MASS J08345385+1801055	M4.0±0.1	16.49±0.01	-38.2	-12.0	3.9	97.1	HSHJ 65
2MASS J08340669+2049468	M4.0±0.1	16.52±0.01	-34.6	-16.5	4.1	98.5	AD 1852
2MASS J08383995+1754210	M4.0±0.1	16.68±0.01	-39.0	-8.7	3.0	96.1	HSHJ220
2MASS J08341139+2104148	M4.0±0.1	16.79±0.01	-35.3	-13.7	4.1	98.7	AD 1863
2MASS J08452235+1949401	M4.1±0.1	15.21±0.01	-38.6	-13.6	2.8	99.1	JS753
2MASS J08401520+2005140	M4.1±0.2	15.42±0.01	-36.0	-10.5	3.0	99.7	JS719 (M4.5; Adams et al. 2002)
2MASS J08411075+1901539	M4.1±0.1	15.55±0.01	-32.7	-9.7	3.0	98.9	JS725 (M4.5; Adams et al. 2002)
2MASS J08415223+1942283	M4.1±0.1	15.70±0.01	-29.8	-7.8	3.0	98.1	AD 3028 (M4; Adams et al. 2002)
2MASS J08454796+1936187	M4.1±0.1	15.72±0.01	-24.4	-16.8	9.6	75.1	AD 3452 (M4.5; Adams et al. 2002)
2MASS J08442124+1956117	M4.1±0.1	15.92±0.01	-37.0	-16.8	3.0	99.2	AD 3310 (M4.5; Adams et al. 2002)
2MASS J08411779+1703206	M4.1±0.2	15.96±0.01	-42.7	-12.0	3.0	87.9	AD 2928
2MASS J08392215+2047584	M4.1±0.1	16.09±0.01	-31.6	-13.6	3.0	99.2	HSHJ261 (M4.5; Adams et al. 2002)
2MASS J08365162+1850193	M4.1±0.1	16.14±0.01	-34.1	-16.3	3.9	98.8	HSHJ138 (M4.5; Adams et al. 2002)
2MASS J08340433+1658247	M4.1±0.1	16.14±0.01	-33.1	-9.2	3.0	85.7	AD 1844
2MASS J08470496+1855428	M4.1±0.1	16.20±0.01	-34.6	-15.1	3.6	98.0	
2MASS J08355026+1951001	M4.1±0.1	16.20±0.01	-37.8	-15.0	3.0	99.4	
2MASS J08361204+1752467	M4.1±0.2	16.27±0.01	-37.1	-11.7	3.0	97.3	HSHJ110
2MASS J08315427+1845361	M4.1±0.1	16.31±0.01	-34.9	-9.8	3.0	96.5	HSHJ 18
2MASS J08445702+2106481	M4.1±0.2	16.38±0.01	-26.3	-5.4	3.0	64.9	AD 3358
2MASS J08424461+1828000	M4.1±0.1	16.39±0.01	-38.3	-12.1	3.0	98.6	AD 3127
2MASS J08480023+2024068	M4.1±0.1	16.42±0.01	-36.0	-19.6	3.0	96.3	
2MASS J08411445+2059463	M4.1±0.1	16.44±0.01	-37.0	-15.2	3.9	99.4	HSHJ356 (M4.5; Adams et al. 2002)
2MASS J08331576+2309433	M4.1±0.1	16.46±0.01	-40.0	-11.4	3.1	86.9	AD 1734
2MASS J08421029+1846003	M4.1±0.1	16.49±0.01	-29.8	-16.8	3.0	97.1	AD 3057 (M5; Adams et al. 2002)
2MASS J08360325+2050157	M4.1±0.1	16.49±0.01	-41.0	-15.7	3.0	98.7	HSHJ 96
2MASS J08422988+1958317	M4.1±0.1	16.51±0.01	-39.1	-15.0	3.0	99.6	AD 3093 (M4.5; Adams et al. 2002)
2MASS J08352683+2139018	M4.1±0.1	16.55±0.01	-25.8	-10.4	3.0	77.6	AD 2021
2MASS J08411490+1727366	M4.1±0.1	16.70±0.01	-34.6	-8.5	3.9	93.9	AD 2919

TABLE 3
Candidate Members of Praesepe

2MASS J08381244+2008026	M4.1±0.1	16.75±0.01	-42.7	-17.6	3.0	99.0	
2MASS J08424097+1931584	M4.1±0.1	16.77±0.01	-32.0	-15.8	3.0	99.2	AD 3120 (M4.5; Adams et al. 2002)
2MASS J08411969+1905544	M4.1±0.1	16.78±0.01	-33.0	-16.9	3.0	99.1	AD 2934
2MASS J08395862+1617464	M4.1±0.2	16.85±0.01	-34.1	-8.5	3.0	79.6	AD 2655
2MASS J08254162+1930425	M4.1±0.1	16.86±0.01	-33.6	-14.4	3.1	89.9	AD 0769
2MASS J08361083+1941413	M4.1±0.1	16.95±0.01	-37.3	-4.2	3.9	96.2	HSHJ106 (M4.5; Adams et al. 2002)
2MASS J08310759+1635041	M4.2±0.1	15.35±0.01	-35.6	-13.1	3.0	84.1	AD 1452
2MASS J08441164+2013000	M4.2±0.1	15.59±0.01	-33.2	-16.4	3.0	99.1	JS743 (M4.5; Adams et al. 2002)
2MASS J08394059+1836587	M4.2±0.2	15.74±0.01	-33.3	-11.4	3.0	98.8	HSHJ282 (M4.5; Adams et al. 2002)
2MASS J08353928+2024099	M4.2±0.1	15.78±0.01	-31.2	-16.1	3.0	98.6	AD 2042
2MASS J08351705+1736244	M4.2±0.1	15.93±0.01	-33.7	-8.6	3.0	92.8	HSHJ 74
2MASS J08460919+2136288	M4.2±0.1	15.94±0.01	-40.7	-17.9	3.0	95.3	HSHJ498
2MASS J08434736+1803001	M4.2±0.2	15.95±0.01	-29.1	-9.8	3.0	90.8	HSHJ466
2MASS J08354461+1857382	M4.2±0.2	16.15±0.01	-39.3	-10.3	3.0	98.6	HSHJ 84 (M4.2; Kafka & Honeycutt 2006)
2MASS J08410176+1748515	M4.2±0.1	16.22±0.01	-35.5	-22.3	3.0	88.1	AD 2872
2MASS J08441172+1632324	M4.2±0.1	16.27±0.01	-31.1	-7.5	3.0	66.7	
2MASS J08462632+1750445	M4.2±0.1	16.27±0.01	-42.9	-12.8	2.7	91.2	AD 3517
2MASS J08511686+2214066	M4.2±0.1	16.30±0.01	-44.2	-15.7	3.0	71.2	HSHJ515
2MASS J08423074+1906578	M4.2±0.1	16.32±0.01	-35.5	-14.8	3.0	99.4	AD 3094 (M4.5; Adams et al. 2002)
2MASS J08370765+1957274	M4.2±0.2	16.32±0.01	-27.6	-23.6	3.0	80.5	AD 2275 (M4.5; Adams et al. 2002)
2MASS J08450854+1909082	M4.2±0.1	16.36±0.01	-36.1	-11.5	2.8	98.9	AD 3375 (M4; Adams et al. 2002)
2MASS J08442721+1852207	M4.2±0.1	16.39±0.01	-33.7	-20.1	3.0	96.7	AD 3317 (M4.5; Adams et al. 2002)
2MASS J08364501+2008459	M4.2±0.1	16.45±0.01	-33.5	-12.3	3.0	99.4	AD 2216 (M4.5; Adams et al. 2002)
2MASS J08304258+1922308	M4.2±0.1	16.49±0.01	-28.1	-19.7	4.0	77.2	AD 1398
2MASS J08374984+2047407	M4.2±0.1	16.55±0.01	-44.1	-14.9	4.0	98.0	
2MASS J08414206+2034079	M4.2±0.2	16.58±0.01	-37.9	-11.3	3.9	99.5	AD 3003 (M4.5; Adams et al. 2002)
2MASS J08340155+2100390	M4.2±0.1	16.59±0.01	-36.2	-16.5	4.1	98.4	AD 1837
2MASS J08384160+1934180	M4.2±0.1	16.67±0.01	-36.1	-16.5	3.0	99.6	HSHJ218 (M4.5; Adams et al. 2002)
2MASS J08363734+1601205	M4.2±0.1	16.67±0.01	-43.4	-9.8	3.0	56.4	AD 2192
2MASS J08332821+1843363	M4.2±0.1	16.71±0.01	-37.9	-20.7	4.0	94.2	HSHJ 41
2MASS J08414334+2121422	M4.2±0.1	16.72±0.01	-38.0	-19.3	4.0	98.0	AD 3005
2MASS J08472367+1624491	M4.2±0.2	16.75±0.01	-39.2	-7.3	2.7	66.3	AD 3589
2MASS J08311399+2108149	M4.2±0.1	16.75±0.01	-32.0	-21.4	3.1	85.2	AD 1467
2MASS J08454088+1834574	M4.2±0.1	16.80±0.01	-24.8	-19.9	3.6	50.6	AD 3438
2MASS J08513391+1742243	M4.2±0.2	16.83±0.02	-36.2	-12.3	3.6	89.7	AD 3886
2MASS J08422968+1919526	M4.2±0.1	16.84±0.01	-30.6	-14.1	3.0	98.9	HSHJ423 (M5; Adams et al. 2002)
2MASS J08362111+1850276	M4.2±0.1	17.03±0.01	-32.8	-19.4	3.9	97.2	HSHJ118
2MASS J08385616+2156271	M4.2±0.3	17.05±0.01	-44.7	-19.3	3.1	85.5	AD 2484
2MASS J09004466+1809458	M4.3±0.1	15.39±0.01	-39.1	-13.4	2.7	52.9	AD 4739
2MASS J08360860+1957254	M4.3±0.1	15.96±0.01	-32.1	-15.4	3.9	99.1	HSHJ102 (M4.5; Adams et al. 2002)
2MASS J08381695+2018353	M4.3±0.1	16.01±0.01	-28.3	-15.7	3.9	98.4	
2MASS J08422382+1923124	M4.3±0.1	16.18±0.01	-37.3	-18.1	3.0	99.2	HSHJ421 (M4.5; Adams et al. 2002)
2MASS J08415464+1818102	M4.3±0.1	16.25±0.01	-27.2	-14.2	3.0	91.0	HSHJ399
2MASS J08341803+1828154	M4.3±0.1	16.33±0.01	-33.9	-16.4	4.0	97.4	HSHJ 54
2MASS J08431467+1742301	M4.3±0.1	16.36±0.01	-33.0	-11.5	2.8	96.0	HSHJ449
2MASS J08465370+1902569	M4.3±0.1	16.36±0.01	-35.6	-16.2	3.6	98.1	
2MASS J08505988+1900355	M4.3±0.1	16.38±0.01	-39.7	-19.7	2.7	88.2	AD 3836
2MASS J08331425+2036212	M4.3±0.1	16.44±0.01	-43.5	-12.5	3.1	96.2	AD 1731
2MASS J08523967+1929285	M4.3±0.1	16.47±0.01	-43.5	-20.3	2.7	66.2	AD 4005
2MASS J08412680+1952367	M4.3±0.1	16.48±0.01	-34.5	-9.2	3.0	99.5	HSHJ370 (M5; Adams et al. 2002)
2MASS J08383287+1723380	M4.3±0.1	16.59±0.01	-38.7	-12.0	3.0	95.8	AD 2415
2MASS J08325958+2007149	M4.3±0.1	16.64±0.01	-40.7	-21.7	4.1	92.3	AD 1696
2MASS J08325011+2453166	M4.3±0.1	16.65±0.02	-32.4	-13.1	4.1	50.2	AD 1675
2MASS J08412873+1942490	M4.3±0.2	16.67±0.01	-34.0	-17.8	3.0	99.5	AD 2959 (M4.5; Adams et al. 2002)
2MASS J08403495+2036038	M4.3±0.1	16.70±0.01	-39.7	-17.6	4.0	99.3	AD 2791 (M4.5; Adams et al. 2002)
2MASS J08431205+1841451	M4.3±0.1	16.71±0.01	-35.3	-12.5	3.9	98.9	AD 3178
2MASS J08412602+2134253	M4.3±0.1	16.71±0.01	-39.9	-26.4	4.0	60.4	HSHJ367
2MASS J08380672+2009445	M4.3±0.1	16.72±0.01	-42.5	-9.8	3.9	99.0	HSHJ193
2MASS J08382537+2021210	M4.3±0.1	16.73±0.01	-36.7	-18.9	3.0	99.4	
2MASS J08383915+1729485	M4.3±0.1	16.77±0.01	-32.8	-14.6	3.0	95.6	HSHJ217
2MASS J08424538+2035336	M4.3±0.2	16.81±0.01	-34.1	-13.9	4.0	99.4	
2MASS J08422203+1846058	M4.3±0.1	16.81±0.01	-26.7	-15.5	3.0	92.3	HSHJ420 (M5; Adams et al. 2002)
2MASS J08342092+2031444	M4.3±0.1	16.88±0.01	-33.6	-20.5	4.2	96.7	AD 1887
2MASS J08440067+2038454	M4.3±0.1	16.96±0.01	-44.0	-12.4	3.9	97.6	AD 3267 (M5; Adams et al. 2002)
2MASS J08333385+1824300	M4.3±0.1	16.97±0.01	-37.0	-9.4	4.1	96.7	HSHJ 44
2MASS J08360242+1904265	M4.3±0.1	16.98±0.01	-30.9	-5.9	3.9	94.1	HSHJ 99
2MASS J08251373+1736453	M4.3±0.2	16.99±0.01	-35.0	-15.7	3.9	78.0	AD 0723
2MASS J08385420+1951446	M4.3±0.1	17.03±0.02	-29.4	-9.3	9.6	98.8	HSHJ233
2MASS J08452106+1849327	M4.3±0.1	17.04±0.01	-38.5	-11.6	3.9	98.5	AD 3400
2MASS J08313445+1718235	M4.3±0.1	17.07±0.01	-33.0	-10.9	4.1	88.3	AD 1515
2MASS J08481155+2126351	M4.3±0.1	17.17±0.02	-34.7	-8.3	3.9	94.7	
2MASS J08461572+1805500	M4.3±0.1	17.17±0.01	-34.2	-15.7	3.6	96.5	AD 3497
2MASS J08345733+1729160	M4.3±0.1	17.25±0.01	-38.5	-13.5	4.1	95.4	HSHJ 66
2MASS J08481148+1811280	M4.4±0.2	15.13±0.01	-40.1	-15.2	2.7	94.8	
2MASS J08363150+1818549	M4.4±0.1	15.72±0.01	-34.2	-13.9	3.0	98.3	JS694
2MASS J08385659+2051278	M4.4±0.1	15.90±0.01	-29.9	-16.9	3.0	98.3	HSHJ236
2MASS J08384214+1822555	M4.4±0.1	15.94±0.01	-33.8	-13.7	3.0	98.6	HSHJ222 (M4.5; Adams et al. 2002)

TABLE 3
Candidate Members of Praesepe

2MASS J08433375+1924247	M4.4±0.1	15.96±0.01	-30.8	-11.0	3.0	98.6	HSHJ459 (M4.5; Adams et al. 2002)
2MASS J08365864+1849522	M4.4±0.1	15.98±0.01	-31.9	-14.8	3.0	98.6	AD 2248 (M4.5; Adams et al. 2002)
2MASS J08463042+1938553	M4.4±0.1	16.07±0.01	-36.3	-17.5	2.7	98.4	AD 3525
2MASS J08441232+2043010	M4.4±0.2	16.31±0.01	-43.7	-13.2	3.9	97.7	AD 3283
2MASS J08471193+2107485	M4.4±0.1	16.50±0.01	-37.3	-19.9	3.0	95.5	HSHJ501
2MASS J08462006+2100321	M4.4±0.1	16.54±0.01	-32.1	-14.6	3.9	97.8	HSHJ499 (;)
2MASS J08415335+1915558	M4.4±0.2	16.62±0.01	-31.7	-11.7	3.9	99.1	AD 3031 (M4.5; Adams et al. 2002)
2MASS J08432013+2004258	M4.4±0.2	16.63±0.01	-40.3	-13.5	3.9	99.4	HSHJ451
2MASS J08410926+1734170	M4.4±0.1	16.63±0.01	-32.2	-14.8	3.0	95.5	AD 2892
2MASS J08344851+1755588	M4.4±0.1	16.65±0.01	-35.8	-15.2	3.0	97.0	HSHJ 62
2MASS J08310603+1807480	M4.4±0.1	16.66±0.01	-41.6	-13.6	3.0	92.3	HSHJ 11
2MASS J08391538+1919284	M4.4±0.1	16.70±0.01	-32.2	-14.0	4.0	99.4	AD 2527 (M4.5; Adams et al. 2002)
2MASS J08392614+1848170	M4.4±0.1	16.78±0.01	-34.3	-19.3	3.9	98.3	AD 2559 (M4.5; Adams et al. 2002)
2MASS J08310020+1924160	M4.4±0.1	16.78±0.01	-40.8	-16.5	4.1	95.9	HSHJ 10
2MASS J08453429+1654396	M4.4±0.1	16.79±0.01	-34.6	-8.6	3.6	86.1	AD 3423
2MASS J08394007+1850492	M4.4±0.1	16.81±0.01	-36.2	-13.0	3.9	99.3	HSHJ280 (M4.5; Adams et al. 2002)
2MASS J08425052+2020039	M4.4±0.1	16.82±0.01	-35.7	-15.9	3.9	99.5	AD 3140 (M4; Adams et al. 2002)
2MASS J08542881+2149061	M4.4±0.1	16.83±0.01	-37.6	-19.4	4.0	75.1	AD 4207
2MASS J08415058+1929395	M4.4±0.1	16.85±0.01	-32.2	-12.4	3.9	99.4	HSHJ396 (M4.5; Adams et al. 2002)
2MASS J08392655+2051446	M4.4±0.1	16.86±0.01	-35.2	-13.8	3.9	99.5	HSHJ264
2MASS J08355721+1921064	M4.4±0.1	16.88±0.01	-36.3	-15.4	3.9	99.3	HSHJ 90 (M4.5; Adams et al. 2002)
2MASS J08411024+2207453	M4.4±0.1	16.88±0.01	-24.6	-11.8	4.1	63.7	HSHJ349
2MASS J08332522+1820465	M4.4±0.1	16.95±0.01	-46.3	-7.0	3.0	63.6	HSHJ 39
2MASS J08414792+2023226	M4.4±0.2	16.97±0.01	-39.5	-11.9	3.9	99.5	AD 3015 (M4.5; Adams et al. 2002)
2MASS J08382289+2126005	M4.4±0.1	16.97±0.01	-44.3	-22.8	4.0	78.0	
2MASS J08485140+2054153	M4.4±0.1	16.99±0.02	-36.1	-11.2	3.9	97.3	HSHJ508
2MASS J08450384+2128181	M4.4±0.2	17.00±0.01	-28.5	-11.1	3.9	92.8	AD 3366
2MASS J08401695+2042007	M4.4±0.1	17.01±0.01	-34.3	-17.8	3.9	99.3	HSHJ309 (M4.5; Adams et al. 2002)
2MASS J08512322+1951183	M4.4±0.3	17.12±0.01	-33.0	-21.5	3.6	81.8	AD 3873
2MASS J08432246+2054253	M4.4±0.1	17.16±0.02	-38.8	-13.2	4.0	99.2	HSHJ453 (M5; Adams et al. 2002)
2MASS J08332193+2205344	M4.4±0.1	17.18±0.01	-29.2	-19.8	4.1	77.2	AD 1747
2MASS J08460196+2032031	M4.4±0.1	17.22±0.01	-38.2	-15.1	4.0	98.9	AD 3475
2MASS J08363855+2111300	M4.4±0.1	17.22±0.01	-32.7	-13.5	4.1	98.7	AD 2196
2MASS J08465945+1954595	M4.4±0.1	17.31±0.02	-34.8	-20.1	3.7	96.7	
2MASS J08411910+1905186	M4.5±0.1	15.63±0.01	-36.9	-17.5	3.0	99.2	JS728 (M4.5; Adams et al. 2002)
2MASS J08385103+1918335	M4.5±0.1	15.81±0.01	-34.3	-13.8	3.0	99.5	HSHJ229 (M4.5; Adams et al. 2002)
2MASS J08460851+1953527	M4.5±0.1	15.98±0.01	-40.6	-20.2	2.7	96.3	AD 3485
2MASS J08400351+2317173	M4.5±0.1	16.13±0.01	-37.3	-18.0	4.2	88.7	AD 2675
2MASS J08492404+2014065	M4.5±0.1	16.15±0.01	-41.4	-13.9	3.6	96.1	
2MASS J08345927+2108373	M4.5±0.1	16.22±0.01	-37.4	-7.6	4.0	97.4	AD 1962
2MASS J08281588+1812280	M4.5±0.2	16.31±0.01	-35.9	-19.6	3.0	83.9	AD 1081
2MASS J08384788+2145334	M4.5±0.1	16.31±0.01	-44.1	-16.4	4.0	94.1	HSHJ225
2MASS J08492037+1626543	M4.5±0.1	16.40±0.01	-31.2	-9.6	3.6	62.4	AD 3703
2MASS J08485990+2041555	M4.5±0.2	16.48±0.01	-40.0	-21.5	3.9	88.4	
2MASS J08420448+1932427	M4.5±0.1	16.52±0.01	-45.3	-9.4	3.0	96.8	AD 3050 (M5; Adams et al. 2002)
2MASS J08451235+1918247	M4.5±0.2	16.54±0.01	-27.3	-21.0	3.0	81.6	AD 3383 (M4.5; Adams et al. 2002)
2MASS J08383929+1941401	M4.5±0.2	16.61±0.01	-36.5	-13.1	3.9	99.7	HSHJ215 (M4.5; Adams et al. 2002)
2MASS J08474029+2143248	M4.5±0.1	16.67±0.01	-40.6	-18.9	3.0	91.8	HSHJ502
2MASS J08363050+1955139	M4.5±0.1	16.68±0.01	-37.6	-17.3	3.9	99.3	AD 2179 (M4.5; Adams et al. 2002)
2MASS J08410264+1810067	M4.5±0.1	16.72±0.01	-30.2	-9.6	3.0	95.0	HSHJ347
2MASS J08420327+2110215	M4.5±0.1	16.73±0.01	-39.2	-15.9	3.9	99.0	HSHJ403
2MASS J08430186+1954046	M4.5±0.2	16.77±0.01	-35.8	-20.0	3.9	98.9	AD 3156 (M4.5; Adams et al. 2002)
2MASS J08400006+1722060	M4.5±0.3	16.85±0.01	-32.7	-12.4	3.9	95.0	AD 2662
2MASS J08391572+1920024	M4.5±0.1	16.89±0.01	-32.9	-10.0	3.9	99.3	HSHJ256 (M4.6; Kafka & Honeycutt 2006)
2MASS J08400134+2022225	M4.5±0.2	16.95±0.01	-24.2	-18.5	3.9	86.8	AD 2668 (M4.5; Adams et al. 2002)
2MASS J08335224+1926118	M4.5±0.1	16.98±0.01	-38.6	-14.1	4.1	98.8	HSHJ 50
2MASS J08360107+2117113	M4.5±0.1	16.99±0.01	-36.4	-14.5	4.0	98.9	HSHJ 92
2MASS J08412899+1845351	M4.5±0.1	16.99±0.01	-26.3	-10.6	3.9	90.7	AD 2961 (M5; Adams et al. 2002)
2MASS J08503613+1957067	M4.5±0.1	17.00±0.01	-37.8	-16.0	3.7	96.3	AD 3792
2MASS J08300599+1816463	M4.5±0.1	17.02±0.01	-36.7	-13.7	4.1	95.1	HSHJ 3
2MASS J08405751+2028414	M4.5±0.1	17.04±0.01	-41.4	-10.1	3.9	99.3	AD 2859 (M4.5; Adams et al. 2002)
2MASS J08405784+2307169	M4.5±0.1	17.05±0.01	-32.8	-14.3	4.2	91.6	AD 2860
2MASS J08430557+1855060	M4.5±0.1	17.06±0.01	-28.2	-13.8	3.9	96.3	HSHJ439 (M5; Adams et al. 2002)
2MASS J08484324+2229589	M4.5±0.1	17.11±0.01	-45.0	-19.3	4.1	55.4	
2MASS J08351521+1922315	M4.5±0.1	17.11±0.01	-33.0	-17.5	3.9	98.5	AD 1994
2MASS J08560350+2057116	M4.5±0.1	17.45±0.01	-30.6	-15.0	4.0	73.6	AD 4359
2MASS J08345539+2011040	M4.6±0.2	15.79±0.01	-38.4	-18.9	3.0	98.5	HSHJ 64 (M4.5; Adams et al. 2002)
2MASS J08430289+2145136	M4.6±0.1	15.91±0.01	-42.9	-15.5	3.1	95.8	AD 3161
2MASS J08300294+1757021	M4.6±0.1	16.54±0.01	-28.4	-9.9	4.0	71.7	HSHJ 2
2MASS J08392108+1826121	M4.6±0.1	16.61±0.01	-30.9	-12.5	3.9	97.8	HSHJ263 (M4.5; Adams et al. 2002)
2MASS J08462741+1912325	M4.6±0.1	16.70±0.01	-31.7	-13.5	3.6	97.8	AD 3518
2MASS J08424023+1538255	M4.6±0.1	16.70±0.01	-31.5	-10.6	3.9	62.0	
2MASS J08382186+2005356	M4.6±0.1	16.77±0.01	-36.3	-6.7	3.0	99.2	
2MASS J08304851+2136453	M4.6±0.1	16.80±0.01	-36.4	-22.8	4.1	78.1	AD 1407
2MASS J08485681+2350220	M4.6±0.1	16.81±0.01	-38.5	-20.1	4.1	55.8	
2MASS J08404609+1649073	M4.6±0.1	16.84±0.01	-35.0	-6.0	3.9	79.0	AD 2820
2MASS J08415364+2037159	M4.6±0.1	16.84±0.01	-34.5	-20.3	4.0	98.7	AD 3033 (M4.5; Adams et al. 2002)

TABLE 3
Candidate Members of Praesepe

2MASS J08393965+1906562	M4.6±0.1	16.88±0.01	-34.1	-18.1	3.9	99.1	HSHJ277 (M5; Adams et al. 2002)
2MASS J08370146+2053479	M4.6±0.1	16.88±0.01	-34.8	-14.6	4.0	99.3	HSHJ146
2MASS J08372040+2032079	M4.6±0.1	16.88±0.01	-26.5	-11.0	3.9	95.1	AD 2302 (M4.5; Adams et al. 2002)
2MASS J08355651+2037070	M4.6±0.1	16.89±0.01	-41.0	-16.3	4.1	98.8	AD 2082
2MASS J08385476+2047168	M4.6±0.1	16.89±0.01	-27.5	-12.4	3.9	97.1	
2MASS J08343109+2037456	M4.6±0.2	16.89±0.01	-41.9	-23.2	4.1	86.7	AD 1907
2MASS J08410314+1918093	M4.6±0.1	16.95±0.01	-24.8	-14.9	3.9	91.0	AD 2878 (M5; Adams et al. 2002)
2MASS J08410646+1906106	M4.6±0.1	16.96±0.01	-36.3	-15.0	3.9	99.4	HSHJ348 (M5; Adams et al. 2002)
2MASS J08385651+1812598	M4.6±0.1	16.98±0.01	-42.5	-6.5	3.9	91.0	HSHJ240
2MASS J08400391+1855574	M4.6±0.1	16.99±0.01	-40.6	-13.7	3.9	99.1	AD 2678 (M5; Adams et al. 2002)
2MASS J08481312+2126004	M4.6±0.1	17.04±0.01	-27.1	-18.4	4.0	73.4	
2MASS J08333450+1957059	M4.6±0.2	17.05±0.01	-37.7	-20.8	4.1	96.6	AD 1775
2MASS J08331168+1615514	M4.6±0.1	17.07±0.01	-33.7	-6.2	3.9	56.0	AD 1724
2MASS J08470524+1902099	M4.6±0.2	17.07±0.01	-33.7	-12.7	3.6	98.0	
2MASS J08384128+1959471	M4.6±0.6	17.10±0.02	-37.3	-20.8	4.1	99.1	AD 2440 (M2.5; Adams et al. 2002)
2MASS J08435674+1821216	M4.6±0.1	17.13±0.01	-24.4	-15.8	3.9	66.7	AD 3260
2MASS J08353613+1931583	M4.6±0.3	17.16±0.01	-39.5	-15.1	4.0	99.1	HSHJ 78 (M3.2; Kafka & Honeycutt 2006)
2MASS J08320733+1936240	M4.6±0.1	17.19±0.01	-46.7	-8.2	3.0	75.6	HSHJ 21
2MASS J08331393+2042483	M4.6±0.1	17.21±0.01	-35.9	-5.9	4.1	95.3	AD 1728
2MASS J08412371+2056221	M4.6±0.1	17.22±0.01	-39.1	-19.8	4.0	98.4	AD 2943
2MASS J08401923+1812410	M4.6±0.1	17.24±0.01	-41.3	-17.7	3.0	96.6	AD 2740
2MASS J08282465+2027540	M4.6±0.1	17.24±0.01	-27.6	-15.1	3.1	78.4	
2MASS J08435794+1930592	M4.6±0.1	17.29±0.01	-26.8	-21.1	3.9	83.9	HSHJ472 (M5; Adams et al. 2002)
2MASS J08384582+2054599	M4.6±0.1	17.39±0.02	-37.4	-26.0	4.0	83.8	AD 2453
2MASS J08295869+1928590	M4.6±0.2	17.45±0.01	-38.2	-15.3	4.1	96.8	HSHJ 1
2MASS J08372285+1719597	M4.7±0.1	16.36±0.01	-34.3	-6.3	4.1	86.7	AD 2307
2MASS J08284865+1858359	M4.7±0.1	16.58±0.01	-31.0	-14.7	4.0	91.2	AD 1164
2MASS J08411016+1912133	M4.7±0.1	16.78±0.01	-32.2	-18.7	4.0	98.7	HSHJ352 (M5; Adams et al. 2002)
2MASS J08393615+1840489	M4.7±0.2	16.79±0.01	-32.0	-8.9	3.0	97.9	HSHJ276 (M4.5; Adams et al. 2002)
2MASS J08405807+2012503	M4.7±0.1	16.79±0.01	-42.6	-18.2	3.9	99.0	HSHJ342 (M5; Adams et al. 2002)
2MASS J08391850+1922442	M4.7±0.1	16.86±0.01	-37.6	-9.0	3.9	99.4	HSHJ258 (M4.5; Adams et al. 2002)
2MASS J08380247+2037164	M4.7±0.1	16.86±0.01	-32.5	-17.3	3.9	99.1	
2MASS J08332348+2018032	M4.7±0.1	16.98±0.01	-37.3	-18.0	4.1	98.2	AD 1750
2MASS J08383564+2110381	M4.7±0.1	17.10±0.01	-35.2	-18.9	4.0	98.5	HSHJ209
2MASS J08351703+2058108	M4.7±0.1	17.11±0.01	-34.9	-6.4	4.1	96.8	AD 1999
2MASS J08414234+1812478	M4.7±0.1	17.17±0.01	-37.7	-14.6	3.0	98.4	HSHJ389
2MASS J08371789+1929170	M4.7±0.1	17.17±0.01	-37.2	-9.1	3.9	99.3	AD 2295 (M5; Adams et al. 2002)
2MASS J08421311+1918529	M4.7±0.1	17.24±0.01	-24.5	-9.8	3.0	85.1	HSHJ412 (M5.5; Adams et al. 2002)
2MASS J08342738+1841501	M4.7±0.2	17.25±0.01	-34.0	-17.0	4.1	97.7	AD 1904
2MASS J08481071+1937332	M4.7±0.1	17.34±0.01	-32.8	-6.0	3.6	92.2	
2MASS J08405249+1801012	M4.7±0.1	17.37±0.01	-25.1	-14.7	4.0	73.8	AD 2837
2MASS J08422021+2144439	M4.7±0.1	17.37±0.01	-40.4	-13.9	4.0	97.9	AD 3077
2MASS J08443640+1917177	M4.7±0.1	17.39±0.01	-40.6	-16.7	4.0	98.5	AD 3332 (M4.5; Adams et al. 2002)
2MASS J08435665+1916180	M4.7±0.1	17.43±0.01	-28.5	-14.5	4.0	97.0	HSHJ471 (M5; Adams et al. 2002)
2MASS J08332341+1822586	M4.8±0.1	15.91±0.01	-31.7	-18.5	3.0	93.3	JS670
2MASS J08312690+1840564	M4.8±0.2	16.18±0.01	-33.9	-14.5	4.1	96.6	AD 1500
2MASS J08560173+1917155	M4.8±0.1	16.27±0.01	-44.6	-13.6	3.7	59.9	AD 4357
2MASS J08404166+1930007	M4.8±0.2	16.27±0.01	-33.2	-11.1	3.9	99.5	HSHJ328 (M5; Adams et al. 2002)
2MASS J08382150+2008145	M4.8±0.1	16.37±0.01	-36.3	-14.6	4.0	99.7	
2MASS J08450450+1700170	M4.8±0.1	16.39±0.01	-38.4	-9.2	9.6	89.1	
2MASS J08451445+1933206	M4.8±0.1	16.69±0.01	-25.9	-14.8	3.9	90.2	AD 3390 (M5; Adams et al. 2002)
2MASS J08380136+2032295	M4.8±0.1	16.73±0.01	-32.5	-17.1	4.0	99.2	
2MASS J09001062+1907233	M4.8±0.1	16.83±0.01	-39.8	-12.4	3.7	61.5	AD 4703
2MASS J08431326+2000160	M4.8±0.1	17.05±0.01	-38.9	-18.5	3.6	99.1	HSHJ446 (M5; Adams et al. 2002)
2MASS J08390695+1947080	M4.8±0.1	17.06±0.01	-32.2	-17.8	3.0	99.4	AD 2509 (M5; Adams et al. 2002)
2MASS J08413758+2032004	M4.8±0.1	17.11±0.01	-39.3	-15.3	4.2	99.5	AD 2991
2MASS J08411631+2048548	M4.8±0.1	17.26±0.01	-41.6	-18.8	4.0	98.4	AD 2925 (M5; Adams et al. 2002)
2MASS J08351587+1750446	M4.8±0.1	17.36±0.01	-40.2	-14.0	3.9	96.1	HSHJ 73
2MASS J08374921+2047068	M4.8±0.1	17.36±0.01	-32.8	-10.5	4.1	99.1	
2MASS J08415476+1937009	M4.8±0.1	17.39±0.01	-38.4	-10.3	9.6	99.5	IZ080
2MASS J08360991+1917166	M4.8±0.1	17.49±0.01	-29.5	-19.4	3.9	95.6	IZ031
2MASS J08401920+1838025	M4.9±0.1	17.06±0.01	-40.5	-12.5	4.0	98.7	HSHJ312 (M5; Adams et al. 2002)
2MASS J08483007+1857034	M4.9±0.1	17.21±0.01	-38.3	-10.7	3.7	96.9	
2MASS J08414793+1959500	M4.9±0.2	17.29±0.01	-43.3	-23.3	4.0	93.1	AD 3016 (M5.5; Adams et al. 2002)
2MASS J08393572+2144214	M4.9±0.1	17.38±0.01	-37.7	-16.4	4.0	98.4	AD 2587
2MASS J08463198+1858257	M4.9±0.2	17.49±0.01	-38.9	-8.6	3.7	97.1	AD 3527
2MASS J08380453+1715234	M4.9±0.1	17.51±0.01	-33.0	-4.4	4.0	72.3	AD 2368
2MASS J08405877+2228499	M4.9±0.6	17.73±0.02	-38.5	-17.5	4.1	95.2	AD 2865
2MASS J08303665+1822380	M5.0±0.1	16.19±0.01	-35.0	-15.4	4.0	89.4	HSHJ 5
2MASS J08460502+1647550	M5.0±0.2	16.56±0.01	-36.0	-3.5	2.7	49.9	AD 3481
2MASS J08375755+1858232	M5.0±0.1	16.68±0.01	-33.3	-8.6	3.9	97.8	HSHJ189 (M4.9; Kafka & Honeycutt 2006)
2MASS J08400815+2013066	M5.0±0.1	16.70±0.01	-41.7	-11.2	3.9	99.3	HSHJ299 (M5; Adams et al. 2002)
2MASS J08405890+1914167	M5.0±0.1	16.84±0.01	-33.7	-25.1	3.9	94.6	HSHJ344 (M5.5; Adams et al. 2002)
2MASS J08410746+2154566	M5.0±0.2	16.90±0.01	-18.5	-18.7	4.1	100.0	
2MASS J08394166+1929004	M5.0±0.2	17.05±0.02	-43.9	-7.9	4.1	98.1	HSHJ283 (M5.5; Adams et al. 2002)
2MASS J08360162+1957313	M5.0±0.1	17.11±0.01	-37.3	-6.8	3.9	98.0	HSHJ 95 (M3.9; Kafka & Honeycutt 2006)
2MASS J08374932+1957464	M5.0±0.2	17.12±0.01	-43.2	-16.0	4.0	98.8	HSHJ181 (M5.4; Kafka & Honeycutt 2006)

TABLE 3
Candidate Members of Praesepe

2MASS J08483057+1945072	M5.0±0.1	17.38±0.01	-42.5	-8.3	3.7	91.2	
2MASS J08575230+1850070	M5.0±0.2	17.47±0.01	-50.8	-27.0	3.7	100.0	
2MASS J08391937+1838224	M5.0±0.3	17.53±0.01	-41.3	-23.0	4.0	92.5	IZ063
2MASS J08352430+1925443	M5.0±0.2	17.57±0.02	-36.9	-4.2	3.9	95.4	
2MASS J08420732+1837169	M5.0±0.2	17.57±0.01	-29.3	-10.6	4.1	95.5	
2MASS J08375494+1929369	M5.0±0.2	17.66±0.01	-20.1	-10.7	4.0	78.4	
2MASS J08345583+1836354	M5.0±0.3	17.70±0.01	-22.6	-18.8	3.0	63.9	AD 1955
2MASS J08440390+1901128	M5.1±0.1	16.62±0.01	-28.9	-12.2	4.0	96.0	HSHJ474 (M5; Adams et al. 2002)
2MASS J08414342+2129504	M5.1±0.1	16.64±0.01	-33.5	-18.1	4.0	96.6	HSHJ386
2MASS J08364943+2216062	M5.1±0.2	16.71±0.01	-25.2	-22.4	4.0	51.7	HSHJ131
2MASS J08374154+1830478	M5.1±0.2	17.37±0.01	-31.7	-21.9	4.0	92.4	IZ049
2MASS J08372526+2006350	M5.1±0.3	17.53±0.02	-25.6	-17.7	3.0	96.0	AD 2314
2MASS J08423831+1832279	M5.1±0.3	17.64±0.01	-37.1	-10.2	4.0	97.2	HSHJ429
2MASS J08294342+1833482	M5.1±0.3	17.75±0.01	-44.5	-20.5	4.1	66.8	AD 1267
2MASS J08355207+2015588	M5.2±0.1	16.76±0.01	-32.4	-10.6	3.9	98.3	AD 2075 (M5; Adams et al. 2002)
2MASS J08523339+2057452	M5.2±0.3	17.44±0.01	-35.1	-21.0	4.0	74.4	AD 3996
2MASS J08501368+1941240	M5.2±0.1	17.48±0.01	-29.9	-12.7	3.7	88.7	AD 3755
2MASS J08425512+2031144	M5.2±0.3	17.49±0.01	-36.3	-12.5	4.0	99.0	AD 3145 (M5; Adams et al. 2002)
2MASS J08423366+1827290	M5.2±0.3	17.49±0.01	-38.9	-10.9	4.0	96.9	AD 3101
2MASS J08353194+2101045	M5.2±0.3	17.50±0.01	-42.6	-26.0	4.1	80.2	IZ024
2MASS J08450611+2027133	M5.2±0.2	17.59±0.01	-36.8	-17.2	4.0	98.0	AD 3370
2MASS J08370585+1916589	M5.4±0.2	16.20±0.01	-36.7	-9.8	3.0	98.6	HSHJ151 (M4.5; Adams et al. 2002)
2MASS J08365906+1742063	M5.4±0.1	17.28±0.01	-35.1	-9.7	3.9	92.0	AD 2249
2MASS J08392727+2043591	M5.4±0.4	17.32±0.01	-32.1	-13.6	4.0	98.9	AD 2565 (M5; Adams et al. 2002)
2MASS J08362327+1832422	M5.4±0.4	17.68±0.01	-26.3	-6.6	4.0	83.7	AD 2159
2MASS J08350633+1956480	M5.5±0.3	16.86±0.01	-34.7	-18.3	3.9	98.0	HSHJ 67 (M4.5; Adams et al. 2002)
2MASS J08313595+2024192	M5.5±0.3	16.99±0.01	-26.6	-20.2	4.1	79.3	AD 1516
2MASS J08251613+1854388	M5.5±0.3	17.17±0.01	-40.1	-11.1	4.1	70.2	AD 0726
2MASS J08295083+1823566	M5.5±0.3	17.41±0.01	-33.6	-12.7	3.0	87.3	AD 1282
2MASS J08465563+1802010	M5.5±0.4	17.59±0.01	-36.6	-7.7	3.6	88.3	IZ131
2MASS J08361936+2040467	M5.6±0.1	16.69±0.01	-37.5	-22.2	4.1	96.5	AD 2148
2MASS J08430054+2123281	M5.7±0.3	16.93±0.01	-44.0	-18.9	4.1	93.3	AD 3155
2MASS J08414175+2019084	M5.7±0.1	17.01±0.01	-35.7	-22.1	3.9	98.3	AD 3002 (M5.5; Adams et al. 2002)
2MASS J08430905+1943119	M5.8±0.1	17.42±0.01	-39.5	-15.2	3.9	98.9	
2MASS J08413275+1940138	M5.8±0.5	18.08±0.03	-33.0	-3.1	4.1	97.1	
2MASS J08344871+2018404	M5.8±0.6	18.33±0.02	-34.1	-28.4	4.1	77.1	
2MASS J08424654+1826189	M5.9±0.3	16.96±0.01	-32.5	-8.4	4.0	95.3	AD 3130
2MASS J08312987+2126388	M5.9±0.3	17.75±0.01	-25.2	-11.7	4.2	72.0	
2MASS J08401060+2020505	M6.0±0.2	17.31±0.01	-38.9	-16.2	3.9	98.6	AD 2703 (M5; Adams et al. 2002)
2MASS J08380048+1940562	M6.1±0.1	16.86±0.01	-35.8	-11.0	3.9	98.4	HSHJ190 (M3; Kafka & Honeycutt 2006)
2MASS J08481021+1908599	M6.1±0.3	17.63±0.01	-40.2	-7.9	3.7	89.5	
2MASS J08420470+1938007	M6.1±0.3	17.84±0.02	-44.5	-20.5	4.0	95.1	AD 3051
2MASS J08462594+1953356	M6.1±0.3	17.84±0.02	-33.2	-9.3	3.7	94.8	AD 3516
2MASS J08405443+1601007	M6.2±0.1	17.20±0.01	-37.2	-11.1	4.0	64.9	AD 2848
2MASS J08464001+2134295	M6.2±0.1	17.51±0.02	-39.7	-13.9	4.0	91.6	AD 3548
2MASS J08384816+1631560	M6.2±0.3	18.20±0.02	-31.1	-10.3	4.2	69.0	
2MASS J08462499+2250329	M6.3±0.2	16.89±0.01	-26.2	-19.1	3.0	52.0	AD 3515
2MASS J08300265+1956111	M6.3±0.2	17.15±0.01	-26.8	-15.7	4.1	79.5	AD 1307
2MASS J08252223+2021567	M6.3±0.1	17.17±0.01	-37.0	-16.5	4.1	75.7	AD 0733
2MASS J08391272+1930169	M6.3±0.2	17.27±0.02	-25.4	-24.5	4.2	84.8	
2MASS J08395663+1710335	M6.3±0.2	17.69±0.01	-32.8	-10.5	4.0	83.7	AD 2651
2MASS J08430637+1923388	M6.3±0.2	18.39±0.03	-22.5	-10.6	4.1	84.5	
2MASS J08371143+2013459	M6.4±0.1	17.47±0.01	-21.7	-21.7	4.0	75.4	
2MASS J08461030+2259448	M6.4±0.3	18.01±0.02	-31.6	-15.3	4.2	74.8	
2MASS J08410333+1837158	M6.8±0.2	17.47±0.01	-37.3	-14.2	4.0	96.5	IZ072 (M4.5; Adams et al. 2002)

Note. — The full version of Table 3 will be published as an online-only table in ApJ.

TABLE 4
Candidate Members of Coma Ber

ID	SpT	m_{bol} (mag)	μ_α	μ_δ (mas yr^{-1})	σ_μ	P_{mem} (%)	Previous ID
2MASS J12175090+2534167	F0.3±2.0	7.61±0.01	-10.8	-10.0	0.6	100.0	Tr 49 (F3; Abt & Levato 1977)
2MASS J12122488+2722482	F2.0±1.7	7.85±0.01	-12.2	-9.1	0.8	99.9	Tr 19 (F5; Abt & Levato 1977)
2MASS J12160837+2545373	F2.2±1.9	7.82±0.02	-10.9	-9.5	0.7	99.9	Tr 36 (F3; Abt & Levato 1977)
2MASS J12255195+2646359	F2.5±2.0	8.02±0.02	-12.9	-8.8	0.7	100.0	Tr 118 (F6; Abt & Levato 1977)
2MASS J12134391+2253168	F2.8±1.9	7.84±0.02	-12.6	-9.4	0.6	99.6	Bou 38 (F5V; Bounatiro 1993)
2MASS J12234101+2658478	F3.0±1.8	8.10±0.02	-11.7	-8.1	0.6	100.0	Tr 101 (F6; Abt & Levato 1977)
2MASS J12310309+2743491	F3.0±1.7	8.25±0.02	-12.7	-7.6	0.7	99.6	Tr 162 (F7; Abt & Levato 1977)
2MASS J12222475+2227509	F4.0±1.5	8.30±0.01	-11.6	-9.3	0.6	99.8	Tr 90 (F6; Abt & Levato 1977)
2MASS J12215616+2718342	F4.2±1.8	8.27±0.02	-10.0	-9.6	0.7	99.9	Tr 86 (F7; Abt & Levato 1977)
2MASS J12250226+2533383	F5.3±1.7	7.83±0.01	-11.6	-6.7	0.7	99.8	Tr 111 (F8; Abt & Levato 1977)
2MASS J12340646+3201367	F5.3±1.6	8.05±0.01	-10.4	-10.9	0.7	93.9	(F8; Upgren 1963)
2MASS J12521160+2522245	F5.9±1.6	8.69±0.01	-10.3	-8.4	0.6	95.0	HIP 62805 (F9; Ford et al. 2001)
2MASS J12190147+2450461	F7.7±4.4	8.74±0.02	-11.2	-8.4	0.6	99.9	Tr 58 (F7; Abt & Levato 1977)
2MASS J12204557+2545572	F7.8±2.9	8.89±0.02	-10.7	-6.4	0.7	99.4	Tr 76 (G0; Abt & Levato 1977)
2MASS J12110738+2559249	F8.2±3.0	9.32±0.02	-11.5	-10.3	0.6	99.9	Tr 12 (G0; Bounatiro 1993)
2MASS J12183617+2307123	F8.9±2.7	8.57±0.01	-13.7	-8.2	0.6	98.8	Tr 53 (F7; Abt & Levato 1977)
2MASS J12230840+2551049	F9.7±2.9	8.97±0.01	-10.0	-8.5	0.7	100.0	Tr 97 (F8; Abt & Levato 1977)
2MASS J12214901+2632568	G3.7±3.3	9.21±0.02	-12.1	-8.1	0.7	99.9	Tr 85 (G0; Abt & Levato 1977)
2MASS J12192836+2417033	G3.8±3.1	8.87±0.02	-12.5	-9.5	0.6	99.8	Tr 65 (F5; Abt & Levato 1977)
2MASS J12345429+2727202	G4.8±2.9	8.92±0.02	-11.1	-9.3	0.6	99.7	Tr 192 (F9; Trumpler 1938)
2MASS J12270627+2650445	G4.8±3.8	9.67±0.02	-11.8	-7.4	0.7	99.7	Tr 132 (G6; Trumpler 1938)
2MASS J12274829+2811397	G5.4±2.4	9.46±0.02	-13.1	-8.7	0.6	99.4	Tr 141 (G0; Abt & Levato 1977)
2MASS J12234182+2636054	G5.5±2.1	9.16±0.02	-12.2	-9.6	0.7	100.0	Tr 102 (G0; Abt & Levato 1977)
2MASS J12042326+2449145	G5.6±1.9	9.77±0.01	-12.2	-9.6	0.7	98.0	(G5; Upgren 1962)
2MASS J12332002+2224234	G7.8±1.5	9.85±0.01	-12.7	-8.5	0.7	97.3	
2MASS J12272068+2319475	G7.9±1.5	9.91±0.01	-11.6	-8.8	0.7	99.6	CJD 6
2MASS J12334212+2556340	G8.0±1.9	10.02±0.02	-10.7	-7.7	0.7	99.3	(G6; Upgren 1962)
2MASS J12240572+2607430	G8.1±1.9	10.08±0.02	-11.6	-7.4	0.7	99.9	Ta 13 (K0; Trumpler 1938)
2MASS J12294091+2431147	G8.3±1.8	9.22±0.02	-9.2	-7.6	0.6	96.8	Tr 150 (G9; Trumpler 1938)
2MASS J12282110+2802259	G9.8±1.7	10.12±0.02	-13.5	-10.5	0.6	98.9	TYC 1991-311-1 (G7; Upgren 1962)
2MASS J12241714+2419281	K0.5±1.8	9.63±0.02	-15.3	-13.2	0.7	79.2	Ta 14 (G5; Trumpler 1938)
2MASS J12260547+2644385	K1.6±1.2	9.40±0.02	-11.2	-11.6	0.7	93.2	Tr 120 (K0; Jeffries 1999
2MASS J12172544+2714323	K2.1±0.8	11.01±0.01	-15.9	-4.1	0.7	62.5	
2MASS J12245359+2343048	K2.2±0.9	10.68±0.01	-6.9	-5.3	0.8	64.5	CJD 11
2MASS J12125324+2615014	K2.2±0.7	10.88±0.01	-11.0	-9.0	1.1	84.7	CJD 19
2MASS J12294216+2837147	K2.5±1.0	11.12±0.02	-6.8	-5.8	0.8	57.5	
2MASS J12232870+2250559	K2.6±0.8	9.94±0.01	-13.0	-10.4	0.7	77.2	CJD 3
2MASS J12185869+2603308	K2.7±0.8	11.34±0.02	-13.5	-13.9	1.0	86.3	
2MASS J12113516+2922444	K2.8±0.8	10.93±0.02	-12.5	-9.9	0.8	62.7	
2MASS J12061393+2646503	K2.8±0.7	11.36±0.01	-12.0	-6.3	0.7	60.0	
2MASS J12262401+2515430	K2.8±0.5	11.55±0.02	-15.9	-6.1	1.7	84.9	
2MASS J12242581+2136175	K2.9±0.7	10.76±0.01	-14.4	-9.9	0.9	56.3	
2MASS J12330062+2742447	K2.9±0.9	10.83±0.02	-13.2	-11.8	1.5	79.8	CJD 13
2MASS J12360464+2757356	K2.9±0.1	11.27±0.01	-15.4	-7.9	0.7	65.2	
2MASS J12421455+2836128	K3.0±0.7	9.64±0.01	-9.5	-9.1	0.8	53.3	(G9; Upgren 1962)
2MASS J12310477+2415454	K3.1±0.9	10.19±0.02	-6.7	-4.2	0.7	53.7	CJD 4
2MASS J12075772+2535112	K3.1±0.7	10.92±0.01	-11.5	-7.7	1.2	71.3	
2MASS J12251014+2739448	K3.2±0.7	10.97±0.01	-3.5	-10.7	0.7	52.8	CJD 15
2MASS J12335421+2708047	K3.3±0.7	11.42±0.01	-14.9	-4.7	0.7	64.8	
2MASS J12320807+2854064	K3.4±0.8	11.04±0.02	-8.1	-4.9	1.2	52.1	CJD 18
2MASS J12211561+2609140	K3.5±0.1	11.04±0.01	-13.1	-9.2	1.4	94.4	CJD 17 (K4; Stephenson 1986)
2MASS J12354306+2555227	K3.6±0.4	11.56±0.02	-15.1	-10.5	1.5	76.7	
2MASS J12333019+2610001	K3.7±1.0	10.69±0.02	-16.4	-10.1	0.9	76.2	CJD 8
2MASS J12225237+2638243	K3.9±1.0	11.24±0.02	-8.0	-5.5	0.9	87.6	CJD 22
2MASS J12091244+2639390	K3.9±0.4	11.29±0.01	-12.1	-4.9	0.8	61.6	CJD 24
2MASS J12432507+2647077	K3.9±0.5	11.29±0.01	-12.0	-11.8	1.3	58.4	
2MASS J12153400+2615431	K4.0±0.5	11.60±0.01	-9.1	-2.2	1.8	54.4	CJD 29
2MASS J12140814+2250273	K4.1±0.7	11.12±0.02	-14.7	-9.0	0.7	62.7	
2MASS J12232820+2553400	K4.1±0.8	11.39±0.01	-10.4	-10.3	2.7	95.9	Arty 278 (K5; Jeffries 1999)
2MASS J12075391+2555455	K4.3±0.1	10.79±0.01	-15.9	-10.2	1.0	59.3	
2MASS J12341422+2822419	K4.3±0.4	11.54±0.01	-7.8	-6.1	1.4	60.0	
2MASS J12161909+2655375	K4.4±1.2	9.96±0.02	-4.3	-6.7	0.7	53.2	(G8; Upgren 1962)
2MASS J12225224+2504000	K4.5±0.9	10.12±0.02	-14.9	-14.0	0.8	84.1	(K0; Upgren 1962)
2MASS J12344691+2409378	K4.6±0.1	11.55±0.01	-8.2	-5.8	0.8	64.0	CJD 28
2MASS J12265103+2616018	K4.8±0.1	11.33±0.01	-13.4	-4.4	1.3	87.1	Arty 537 (K5; Jeffries 1999)
2MASS J12185726+2553109	K4.9±0.8	11.13±0.02	-15.8	-13.3	1.2	82.0	CJD 16
2MASS J12285643+2632573	K5.3±0.2	10.84±0.02	-12.6	-9.2	0.7	92.3	Ta 20 (G9; Upgren 1962)
2MASS J12225941+2458584	K5.4±0.7	10.86±0.02	-8.7	-12.3	0.9	89.5	
2MASS J12374817+2657472	K5.5±0.1	10.31±0.01	-14.2	-5.5	0.9	62.4	
2MASS J12232153+2142452	K5.5±0.5	11.98±0.01	-9.8	-8.6	1.9	61.8	
2MASS J12191465+2755503	K5.5±0.6	12.01±0.02	-13.9	-10.0	2.8	84.9	
2MASS J12074177+2412593	K7.2±0.3	11.43±0.01	-9.8	-6.4	1.8	57.7	
2MASS J12285766+2746482	K7.5±0.1	12.50±0.01	-13.2	-5.2	3.0	78.6	CJD 31
2MASS J12211441+2110318	M0.0±0.7	12.19±0.01	-9.2	-5.3	1.9	78.4	

TABLE 4
Candidate Members of Coma Ber

2MASS J12182670+2553008	M0.5±1.7	11.81±0.02	-1.4	-6.7	2.7	87.5	
2MASS J12351745+2427540	M0.9±0.1	12.80±0.01	-5.8	-4.8	3.0	87.5	
2MASS J12244354+3017502	M1.4±0.1	13.11±0.01	-9.0	-12.2	3.0	87.5	
2MASS J12343139+2545001	M1.5±1.6	11.93±0.01	-12.5	0.6	3.0	77.8	
2MASS J12234897+2407559	M1.5±0.2	12.20±0.01	-6.7	-17.8	2.7	87.2	
2MASS J12235553+2324521	M1.5±0.1	13.31±0.01	-9.7	-8.0	2.7	96.8	CJD 37
2MASS J12375631+2551453	M1.7±0.1	13.22±0.01	-7.6	-3.2	3.0	86.1	
2MASS J12315742+2508424	M2.0±0.1	13.14±0.01	-7.1	-16.2	3.0	92.3	CJD 34
2MASS J12160085+2805480	M2.1±0.2	12.83±0.01	-13.6	-5.5	3.0	95.0	CJD 32
2MASS J12305739+2246151	M2.2±0.1	13.00±0.01	-11.0	-8.2	3.0	93.9	CJD 33
2MASS J12265664+2240262	M2.2±0.1	13.31±0.01	-6.3	-8.8	2.7	90.8	
2MASS J12231200+2356148	M2.2±0.1	13.97±0.01	-10.3	-8.8	2.7	98.0	CJD 42
2MASS J12241087+2359362	M2.2±0.1	14.03±0.01	-9.9	-9.4	2.7	98.1	CJD 46
2MASS J12345230+2509243	M2.3±0.1	12.66±0.01	-7.2	-3.8	3.0	91.1	
2MASS J12312773+2523396	M2.3±0.1	13.22±0.01	-2.7	-12.5	3.0	89.0	CJD 35
2MASS J12250262+2642382	M2.4±0.2	13.40±0.01	-7.5	-7.5	3.0	98.8	CJD 38
2MASS J11585412+2351087	M2.4±0.1	13.99±0.01	-6.6	-11.1	2.7	57.2	
2MASS J12201448+2526072	M2.5±0.1	14.05±0.01	-6.6	-5.6	2.7	97.8	
2MASS J12280453+2421077	M2.5±0.1	14.18±0.01	-13.4	-8.1	2.8	98.1	CJD 50
2MASS J12163730+2653582	M2.6±0.1	14.04±0.01	-7.8	-10.9	3.0	97.6	CJD 45
2MASS J12332070+2457173	M2.7±1.0	12.56±0.02	-6.7	0.6	3.0	67.6	
2MASS J12255421+2651387	M2.7±0.1	13.77±0.01	-6.0	-5.2	3.0	97.3	
2MASS J12404588+2712215	M2.8±0.1	14.22±0.01	-14.1	-7.1	2.7	90.4	
2MASS J12264027+2718434	M2.8±0.1	14.28±0.01	-8.3	-11.7	3.0	98.3	
2MASS J12260025+2409208	M2.9±0.1	12.78±0.01	-7.9	-6.0	2.7	97.0	CJD 30
2MASS J12300487+2402338	M3.0±0.1	13.60±0.01	-8.6	-8.0	3.0	96.0	CJD 39
2MASS J12430658+2415172	M3.0±0.2	14.06±0.01	-8.7	-9.7	3.0	84.3	
2MASS J12443091+2809492	M3.1±0.1	14.07±0.01	-11.7	-2.4	2.7	64.6	
2MASS J12151637+2921026	M3.1±0.1	14.34±0.01	-9.8	-11.5	3.1	90.4	
2MASS J12252505+2350527	M3.2±1.6	12.52±0.01	-9.1	-7.6	2.7	96.6	
2MASS J12242665+2545077	M3.2±0.1	12.56±0.01	-2.9	-1.1	2.7	88.5	
2MASS J12175369+2022360	M3.2±0.1	14.15±0.01	-8.4	-11.1	2.7	69.5	
2MASS J12360880+2948106	M3.2±0.1	14.20±0.01	-16.4	-6.5	2.7	77.0	
2MASS J12103091+3004292	M3.2±0.1	14.65±0.01	-4.0	-13.6	3.0	53.9	
2MASS J11590521+2644346	M3.4±1.4	13.03±0.01	-13.3	-15.0	3.0	62.8	
2MASS J12123506+2729387	M3.4±0.1	13.82±0.01	-21.8	-13.6	4.2	65.1	
2MASS J12042256+2401172	M3.4±0.1	14.63±0.01	-4.6	-4.3	2.8	56.0	
2MASS J12292038+2826038	M3.4±0.2	14.85±0.01	-5.8	-5.0	3.0	89.5	
2MASS J12081946+2104578	M3.4±0.1	14.85±0.01	-7.4	-7.6	2.7	61.3	
2MASS J12260848+2439315	M3.5±0.1	13.69±0.01	-2.2	-8.0	2.7	91.3	
2MASS J12153147+2504011	M3.5±0.3	14.84±0.01	-7.3	-7.8	2.7	96.0	
2MASS J12071199+2603402	M3.5±0.1	14.93±0.01	-7.1	-16.9	3.0	73.3	
2MASS J11571593+2439051	M3.6±0.1	13.88±0.01	-17.4	-10.1	3.7	52.9	
2MASS J12384603+2618584	M3.6±0.1	15.08±0.01	-10.6	-14.1	2.7	91.1	
2MASS J12164122+2646391	M3.7±0.1	14.93±0.01	-4.6	-8.9	3.0	94.6	
2MASS J12282758+2833439	M3.8±0.1	14.13±0.01	-5.2	-8.2	3.0	91.3	
2MASS J12172140+2528524	M3.8±0.2	15.09±0.01	-8.1	-9.2	2.7	97.6	
2MASS J12231356+2602185	M3.9±0.1	13.92±0.01	-5.1	-12.1	3.0	98.1	
2MASS J12182193+2744423	M3.9±0.3	14.78±0.01	-4.5	-14.3	3.0	89.8	
2MASS J12423885+2509373	M4.0±0.7	13.15±0.01	-9.7	-9.9	3.0	88.4	
2MASS J12224153+2714512	M4.0±0.1	14.95±0.01	-13.3	-20.0	3.0	87.6	
2MASS J12193796+2634445	M4.1±0.1	14.58±0.01	-14.7	-11.1	3.0	98.2	CJD 59
2MASS J12124277+2513422	M4.1±0.1	15.21±0.01	-3.4	-7.6	2.8	86.7	
2MASS J12063313+2351523	M4.1±0.1	15.27±0.01	-7.7	-10.0	2.7	84.2	
2MASS J12181277+2649154	M4.2±0.1	13.90±0.01	-8.9	-4.9	3.0	96.9	CJD 40
2MASS J12353409+2501018	M4.3±0.1	15.25±0.01	-6.6	-3.6	3.0	87.9	
2MASS J12292013+2444343	M4.4±0.2	15.42±0.01	-10.1	-8.5	3.0	97.8	
2MASS J12402489+2755059	M4.4±0.1	15.72±0.02	-11.1	-19.2	2.7	59.4	
2MASS J12464254+2524004	M4.4±0.2	15.78±0.01	-12.1	-7.6	3.0	80.6	
2MASS J12221448+2526563	M4.4±0.1	15.84±0.01	-6.3	-5.2	2.7	97.5	
2MASS J12313652+2452273	M4.5±0.1	15.37±0.01	-7.9	-10.8	3.0	96.6	
2MASS J12162346+2825101	M4.5±0.1	15.77±0.01	-5.8	-3.8	4.0	84.9	
2MASS J12080921+2443301	M4.7±0.2	15.12±0.01	-8.4	-6.5	2.8	88.7	
2MASS J12114756+2452168	M4.8±0.1	15.83±0.01	-10.1	-11.1	3.7	94.8	
2MASS J12344549+2723127	M4.8±0.1	16.18±0.01	-8.4	-4.8	3.6	92.5	
2MASS J12014176+2729114	M4.9±0.1	16.14±0.01	-3.3	-9.2	3.0	53.8	
2MASS J12371743+2921116	M4.9±0.2	16.31±0.01	-4.5	-10.9	2.7	73.1	
2MASS J12283462+2932420	M5.2±0.1	16.32±0.01	-6.8	-3.2	4.0	78.6	
2MASS J12243115+2505182	M5.3±0.4	16.77±0.01	-19.4	-18.3	3.6	84.4	
2MASS J12223895+2746432	M5.5±0.1	16.27±0.01	-18.1	-12.6	3.0	94.0	
2MASS J12232095+2855148	M5.5±0.3	16.39±0.01	-4.3	-14.8	4.1	81.5	
2MASS J12172675+2858114	M5.7±0.3	17.17±0.01	-14.1	-20.1	4.1	60.9	
2MASS J12181481+2131588	M6.3±0.1	16.77±0.01	-9.2	-10.4	3.7	68.2	
2MASS J12270429+2541012	M6.4±0.1	15.83±0.01	-9.0	-15.3	3.7	91.4	
2MASS J12310816+2416351	M7.3±0.1	16.50±0.02	-15.8	-16.5	4.0	67.8	

Note. — The full version of Table 4 will be published as an online-only table in ApJ.